

APPENDIX 4:

Tribal, Agency, Stakeholder, and Public Comment and Response Summary

Comment Letters and Attachments

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1. 2023-2027 STIP Comments on Juneau Douglas North Crossing PEL Study

	Comment	Commentor name	Reply
2023-2027 STIP Comments to DOT&PF	STIP ID 34146: I strongly oppose the Juneau Douglas North Crossing and any federal funding being spent to further the project. The crossing is not needed (Juneau population is decreasing), it will be environmentally harmful and degrading, it will be an eyesore to the gorgeous views out North Douglas, and federal funding is seriously needed elsewhere in Juneau and the State of Alaska (e.g. maintenance of the current JD bridge, the ferry system, better roads/connectiveness in rural communities). Negative public input on this project has been disregarded and ignored so far. I am hopeful our State DOT will see how useless this project is and consider spending our Federal funds elsewhere where they can be better utilized; DOT should know as they manage such things statewide.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	STIP 34346 constructing a second Juneau - Douglas crossing. I oppose this project because it would have a destructive effect on the Mendenhall Wetlands State Game Refuge, the necessary habitat for large numbers of birds and other wildlife in the vicinity of Juneau and Douglas. Whenever possible we should encroach less on wildlife habitat. It is also a beautiful area that enriches the human lives inhabiting the Juneau-Douglas area.	Judith T Brakel	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	North Douglas (Second) Crossing - (STIP ID #: 34346) This is a terrible idea. It is being touted as a benefit for residents of north Douglas, but is only a thinly veiled effort to benefit developers at the expense of north Douglas residents. It would have disastrous consequences for the Mendenhall wetlands, and would terribly overburden the existing Douglas highway. Long term plans outline a bench road running parallel to the Douglas highway and building that road is an absolute necessity PRIOR to opening access for additional development with a second crossing. The associated increase in trafffic, congestion, and unsafe conditions for those who live along the highway is unacceptable and the community has come out with overwhelming opposition to the second crossing at every opportunity to comment. Not an appropriate project.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.

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2023-2027 STIP Comments to DOT&PF	Please consider removing STIP ID #: 34346 (North Douglas Second Crossing) from all future plans. This project would bisect the Mendenhall Wetlands State Game Refuge and further reduce and fragment this globally designated Important Bird Area which provides critical habitat for hundreds of species of resident and migratory birds and as well as key spawning, rearing, and feeding habitat for all five species of the salmon our community depends on. The southeast Alaska Land Trust is against this proposal and I strongly agree with them. So many Juneau residents choose to live here because of the amazing wilderness we get to enjoy and the intact wilderness is a huge reason why we get so many tourists here as well and this project would cause significant and irreversible damage to the wild populations of birds and salmon. This project would also be very expensive and the burden to taxpayers in combination with the negative environmental impact makes this project a terrible idea.	Evan Deisen	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	I strongly oppose the North Douglas crossing (STIP ID #: 34346). This crossing would bisect the Mendenhall Wetlands State Game Refuge and further deplete this unique region, which is a globally recognized Important Bird Area and serves as absolutely critical habitat for hundreds of species of local and migratory birds. This is also essential spawning habitat for all five species of salmon. Please don't invest in this massive project just to save people fifteen minutes of driving time to Eaglecrest.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	#34346 We do not need another crossing between Juneau and Douglas especially since it crosses sensitive bird and other wildlife habitat. Remove that project from STIP 2024.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	34346 North douglas crossing I do not agree that there is an economic need to have a second crossing between juneau and douglas island. The proposed location would severely endanger the Mendenhall Wetland Refuge ecosystem. All citizens would ultimately pay for irrevocable damage to the Wetlands. Those who might economically benefit in the long term are few and likely not residents in the community it will directly negatively impact.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.

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2023-2027 STIP Comments to DOT&PF	Stip #34346 We do not need a second crossing to Douglas Island. I have been a Douglas Island resident for over 30 years and see no economic or other reason for a second crossing. The major reason people want it is to save a little time getting to Eaglecrest, but this is not a good enough reason to further damage the wetlands. This crossing would do far more harm than good cutting up the Mendenhall wetlands which have already been whittled down time and again with little to no thought of the cumulative effects of all this development on this important wetland area. No second crossing! Spend money on maintenance of the current bridge.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	STIP ID #: 34346 I have resided on North Douglas for 45 years. There has been no instance where life and safety have been challenged by the existence of one crossing point between the mainland and the island. If the effort is to create opportunities for community expansion to the West side of Douglas Island the only viable option for the crossing is the Mendenhall Peninsula route or Northern most crossing option. It avoids the Mendenhall Game Refuge, impacts few homeowner and provides the most direct access point between the Valley commercial area and potential development on the West side of the island.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle schools. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Vanderbilt Hill provides a good alternative plus it would cut many miles off the trip to Eaglecrest. it would also be one of the least damaging to the environment and one of the most economical.	Linda Baker	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	No way. If someone is too lazy to drive another 10 miles to north Douglass then they shouldn't be driving at all. This is just another politically motivated construction project that will benefit only a very few. It will also cross the only flight path to and from the airport which could prove life threatening in the advent of an accident. It would also destroy the integrity of the largest wetlands in the Juneau area. Just another waste of dollars that could go to much more needed projects elsewhere. NO WAY.	John hyde	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.

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2023-2027 STIP Comments to DOT&PF	34146 Missing from the PEL, ahead of crossing location selection and moving on to the DOT process, is any planning for infrastructure improvements on Douglas Island. Often we hear suggestions of a 'bench road' Please wait for definition of this road....and perhaps other Douglas improvements before moving forward with DOT funding. Thank you.	nancy waterman	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	34146 - 2nd crossing from the Juneau mainland to Douglas Island. While a 2nd crossing has safety benefits, there will be unavoidable deterioration of a valuable wetland that is important for migratory birds, for fish, and for local waterfowl hunters if this bridge is not designed to avoid those impacts. That is likely an impossible task.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	STIP# 34346 Second Crossing This project is completely unnecessary. DOT's stated main reason for this project is to reduce congestion on the Juneau Douglas Bridge. My own research observing traffic on a weekday morning showed that there were no cars on the bridge that didn't make it through the Egan & 10th traffic light in more than one light cycle - so there is no congestion problem on the bridge. Citizens paranoid that a vessel will hit and disable the bridge, rendering emergency medical care inaccessible? - for a fraction of the cost of a new bridge, DOT should construct a small ferry dock in the vicinity of the downtown harbors and install a small ferry (like the Ketchikan airport ferry), for use if an accident ever befalls the Juneau Douglas bridge. There is absolutely no need for a second crossing of the channel - citizens voted overwhelmingly against this a number of years ago. DOT: stop trying to find stupid projects to waste money on!!!		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation. or no action recommendation.
2023-2027 STIP Comments to DOT&PF	I oppose fragmenting the Mendenhall Wetlands habitat to build the second crossing at North Douglas, as 5 species of salmon, & hundreds of bird species would be affected. In addition, I don't want to encourage further development of the cruise ship industry, which is already OVERDEVELOPED to an unhealthy level, for our community. If anything, we need to cut it back some. Thank you for this opportunity for my public comment.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	Project # 34146 Where is the demand for this project? Please show justification.		2023-2027 STIP Comments to DOT&PF. No response included.

	Comment	Commentor name	Reply
2023-2027 STIP Comments to DOT&PF	No more money towards this project, We don't need a second crossing. Spend the money on roads, lighting pedestrian crosswalks, etc... but absolutely no more towards something we do not need. Congestion on Douglas Bridge is only 2 times a day for a brief moment. Also the population is trending downward.	Jason Keedy	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	I am in support of the Juneau Douglas North Crossing Project. A bridge on North Douglas will ease commutes for many residents, reduce traffic in many areas, and provide a safer road way for all on Douglas Island and in Downtown Juneau. The sooner the better from my perspective.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	I fully support adding an additional bridge on North Douglas. Adding an additional crossing will create easier access to Eaglecrest for winter sports and the summer gondola once it is operational. It will also increase the response time for emergency personnel to reach North Douglas during emergencies. Additionally, it will alleviate traffic backups and congestion during times of large events at Sandy Beach or when construction is happening on the other bridge.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	Adding a north Douglas crossing would increase the safety of Douglas residents by providing an alternative means of egress and ingress. When accidents or construction impairs traffic across what is now the only crossing, emergency services cannot be expeditiously reached by residents that may be in need. If anything - however unlikely- ever impaired use of the bridge for more than a short time frame, residents would be stranded without options to reach home or town.		We understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.

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2023-2027 STIP Comments to DOT&PF	The North Douglas Secoond Crossing (ID #34146) could be vitally important in connecting residents of Douglas Island to important facilities should either the existing bridge or the bottleneck section of the expressway be closed for some reason. But to do that effectively it needs to go from the part of Douglas where most people actually live to the closest point on the mainland that has duplicate routes to both the hospital and the airport. To be clear, that would be Salmon Creek. A crossing located further out, especially beyond the airport as the map suggests, would truly be a bridge to nowhere. It would benefit no-one other than the workers who build it and the shady group of speculators who have development plans for North Douglas. Juneauites do not need or want a highway across the wetlands.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	YES, fund: AMHS (ships, facilities, staff, & services), Southeast PEOPLE projects like Douglas 2nd Crossing, Ketchikan Airport access, and ALCAN Highway improvements.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	The only other new construction project identified for Juneau in the STIP is ID 34146, the Juneau Douglas second crossing. This should not be a high priority compared to other basic road and marine highway needs for Juneau and Southeast Alaska in my view. However, if this project goes forward, it should be routed outside the boundaries of the Mendenhall Wetlands State Game Refuge. The Refuge's wildlife, fisheries, ecological, recreational, hydrologic and scenic values are outstanding and well-documented, and too valuable and irreplaceable to build a road through the heart of it. Off-refuge alternatives must be included in the full environmental review process.		As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.
2023-2027 STIP Comments to DOT&PF	Please FUND the ferries throughout Southeast Alaska, and please DO NOT pour 10c of millions of dollars into a second crossing from Juneau to North Douglas. There is no need! What will come of this is destruction to the wetlands, fish and other aquatic organism habitat INCLUDING anadromous fish. DO use these funds instead to improve AMHS. Southeast Alaska needs better ferries for our residents. And, this would help independent tourism grow and balance/offer a better alternative other than cruise ships, to see our beautiful region. Studies have shown that independent tourism brings in more money than cruise ship tourism, that actually stays in Alaska and benefits Alaskans. I urge you to be a representative of your state and local populations and utilize this funding to address the needs of the state, and not small wants, that have little to know benefit for the majority of our people.	Mary Glaves	s for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.

2. Alaska Department of Fish and Game

DATE	ITEMS	PAGE
2/3/2023	Memorandum: Juneau Douglas Second Crossing PEL #SFHWY00299	12
1/10/2024	Memorandum: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299	16
1/26/2024	Juneau Douglas Second Crossing Fish Use- Map Package	17
2/7/2024	Letter	79
4/11/2024	Letter: Juneau-Douglas Second Crossing PEL Draft Level 2 Screening Project No. SFHWY00299	90

MEMORANDUM

State of Alaska

Department of Fish and Game
HABITAT SECTION

TO:	Marie Heidemann Transportation Planner DOT&PF	DATE:	February 3, 2023
		FILE:	Gastineau Channel Bridge: DOT Second Crossing
		SUBJECT:	Juneau Douglas Second Crossing PEL #SFHWY00299
FROM:	Jesse Lindgren JL Habitat Biologist	PHONE NO:	(907) 465-1635

Alaska Department of Fish and Game (ADF&G) biologists have reviewed the Alaska Department of Transportation and Public Facilities (DOT&PF) preliminary alternatives and screening as part of the Juneau Douglas second crossing PEL study (State Project #SFHWY00299); Division of Wildlife Conservation Juneau Area Management Biologist Roy Churchwell and I are members of the technical advisory committee.

The Mendenhall Wetlands State Game Refuge (Refuge) management plan includes goals for wildlife, fish, and public use and existing policies to guide decisions on management activities. One of the policies is for a transportation corridor, "The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of the refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel." A Special Area Permit from Habitat Section would be required for Juneau Douglas second crossing activities located on the Refuge.

The Refuge is designated as a globally recognized Important Bird Area. In general, the area around the Mendenhall River mouth and along Twin Lakes are hotspots for birds using the Refuge. As for number of species of birds, the Mendenhall River and near the airport as well as Sunny Point have the highest number of species. Bird species can be specific in the habitats they use, other areas of the Refuge may be important to specific species; please consult with Mr. Churchwell for more details on important wildlife areas.

The Refuge includes over 28 streams providing habitat for Chinook, chum, coho, sockeye, and pink salmon, Dolly Varden, and cutthroat and steelhead trout. An ArcGIS shapefile of the steams in the project area can be obtained by contacting me. The Refuge provides rearing habitat and a migration corridor for salmonoids. Fish Habitat Permits from Habitat Section would be required for Juneau Douglas second crossing activities involving anadromous and resident fish steams.

The Refuge supports recreational use through 13 access points commonly used for hunting, fishing, gathering, hiking, dog walking, nature watching, and photography to name a few. According to hunter data submitted to ADF&G, waterfowl hunting on the Refuge accounts for over 2,000 hunter days by 350 to 400 permit holders harvesting 3,000 to 4,000 waterfowl annually. Sunny Point is the most popular entrance onto the Refuge with 36% of use, the Airport Dike is the next most popular entrance with 27% of use, other popular hunting entrances include the Mendenhall Peninsula with 16% and the Nine-mile area on Douglas Island with 17% of the use. The Sunny Point area bridge or the North Airport tunnel alternatives could pose challenges to waterfowl hunting by eliminating a high use access point and may restrict hunting on the Refuge.

Fishing is a popular activity on the Refuge and in Gastineau Channel. Many anglers fish around Fish Creek and the Fish Creek Pond with heavy use starting in June through September. Anglers also fish Gastineau Channel from the Refuge shore during low tide and by boat during high tide; this is becoming increasingly popular for fly fishing anglers. Finally, at the very southern end of the Refuge by Salmon Creek, anglers fish near the hatchery July through September. Fritz Cove provides important habitat for Dungeness and red king crab which support valuable personal use fisheries. Crab pots often line the western portion of the Refuge, and many boats troll in Fritz Cove from June through September; the Mendenhall Peninsula bridge, depending on location, could alter use in Fritz Cove.

Hikers, dog walkers, photographers, and nature viewers use the Refuge with the most popular access points being the Airport Dike trail and Industrial Boulevard trail. While there is not specific user data, hundreds of people use these trails daily and on sunny days, use increases to thousands of people.

The Refuge is also important for subsistence gathering for food and materials for crafts for native peoples and other users. Many elders use the Refuge because of the ease of access and because it is close to town.

These general comments are intended to summarize Refuge uses by wildlife, fish, and the public. There are other animal and human uses that occur on the Refuge that can be addressed when more specific plans or information is available to review. A crossing between the south side of the Mendenhall Peninsula and the south side of Sunny Point may have greater impacts to the Refuge than the other alternatives. The use of pilings versus fill would reduce impacts to important ecological functions in the Refuge.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Matt Catterson, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Andrew Olson, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Christy Gentemann, DOT&PF, Juneau
Nina Keller, DOWL, Juneau
Morgan McCammon, DOWL, Juneau
Steve Noble, DOWL, Anchorage
Ben Soiseth, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau

From: Morgan McCammon
To: "Casey, Flynn F (DFG)"
Cc: [redacted] PUB-JDNorthCrossing; Theresa Dutchuk
Subject: RE: [EXT] 2024-01-10 Juneau-Douglas Second Crossing Fish Stream Surveys Trip Report
Date: Thursday, January 18, 2024 10:09:00 AM

Good morning, Flynn,

Thank you for sharing your trip report on stream surveys with the Juneau Douglas North Crossing PEL Study team. I have shared this report with the environmental team to incorporate into the PEL study analyses.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Casey, Flynn F (DFG) <[redacted]>
Sent: Wednesday, January 10, 2024 2:10 PM
To: Kanouse, Kate M (DFG) <[redacted]>
Cc: Ott, Alvin G (DFG) <a[redacted]>; DFG - HAB Douglas Staff <[redacted]>; Teske, Daniel J (DFG) <[redacted]>; Forbes, Scott N (DFG) <[redacted]>; Churchwell, Roy T (DFG) <[redacted]>; Rodman, Sue U (DFG) <[redacted]>; Lockwood, Gregory K (DOT) <[redacted]>; Storey, Benjamin M (DOT) [redacted]>; Morgan McCammon <[redacted]>; [redacted]; [redacted]; [redacted]; [redacted]
Subject: [EXT] 2024-01-10 Juneau-Douglas Second Crossing Fish Stream Surveys Trip Report

You don't often get email from flynn.casey@alaska.gov. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello Kate,

I've attached my trip report on stream surveys conducted in late October 2023, in the vicinity of preliminary alternatives identified in ADOT&PF's Juneau-Douglas second crossing PEL study.

Thank you,

Flynn Casey
Pronouns: he/him/his
Alaska Dept. of Fish and Game
Habitat Section Region I
Douglas, AK

MEMORANDUM

State of Alaska
Department of Fish and Game
HABITAT SECTION

TO: Kate Kanouse
Southeast Regional Supervisor

DATE: January 10, 2024

FILE: Gastineau Channel Bridge: DOT Second Crossing

THRU: Jesse Lindgren JL
Habitat Biologist

SUBJECT: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299

FROM: Flynn Casey EFC
Habitat Biologist

PHONE NO: [redacted]

Between October 19 and October 31, 2023, I surveyed streams near the proposed preliminary alternatives identified in the Alaska Department of Transportation and Public Facilities Juneau-Douglas second crossing planning and environmental linkages study (PEL; Figure 1; State Project #SFHWY00299). I surveyed all streams for fish presence using a backpack electrofisher and baited minnow traps, resulting in 20 nominations to the anadromous waters catalog (AWC; Table 1). Level 1 screening of the PEL study was completed in 2023, advancing the Mendenhall Peninsula, West Sunny Point area, Vanderbilt, Twin Lakes, and Salmon Creek alternatives to level 2 screening. Appendix A.1 (west) and A.2 (east) documents fish presence within the project area, identifying streams specified in the 2023 AWC, additions pending acceptance to the AWC, supporting resident fish, and conveyance with no fish observed. All new additions to the AWC were made based on the finding of rearing juvenile coho salmon.

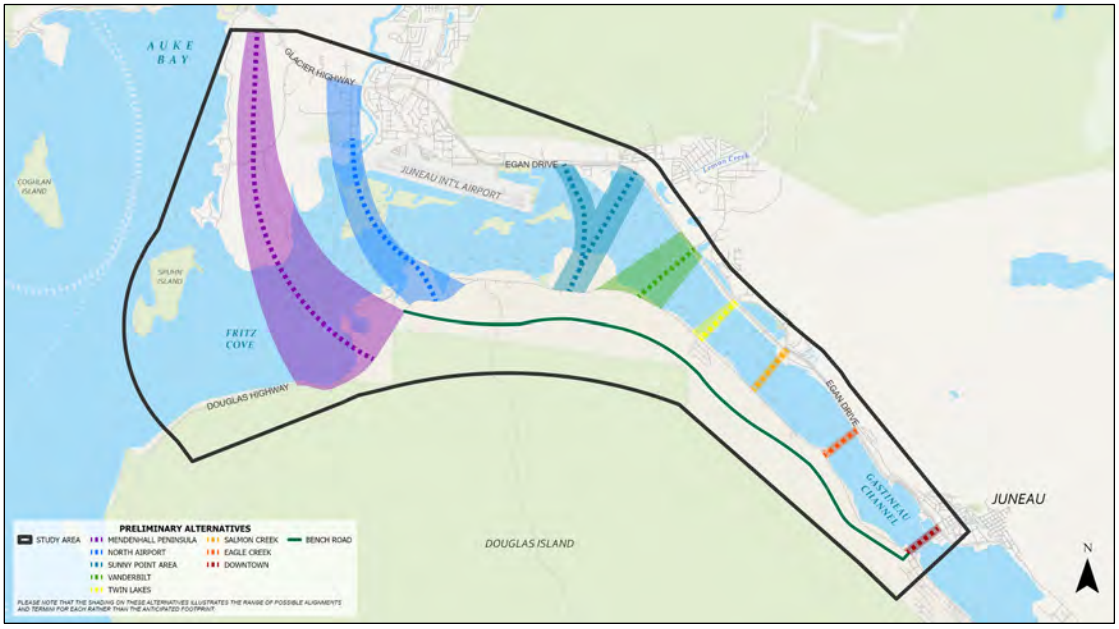


Figure 1.–Preliminary alternatives dated January 03, 2023.

Table 1.–Nominations submitted to the AWC (attached).

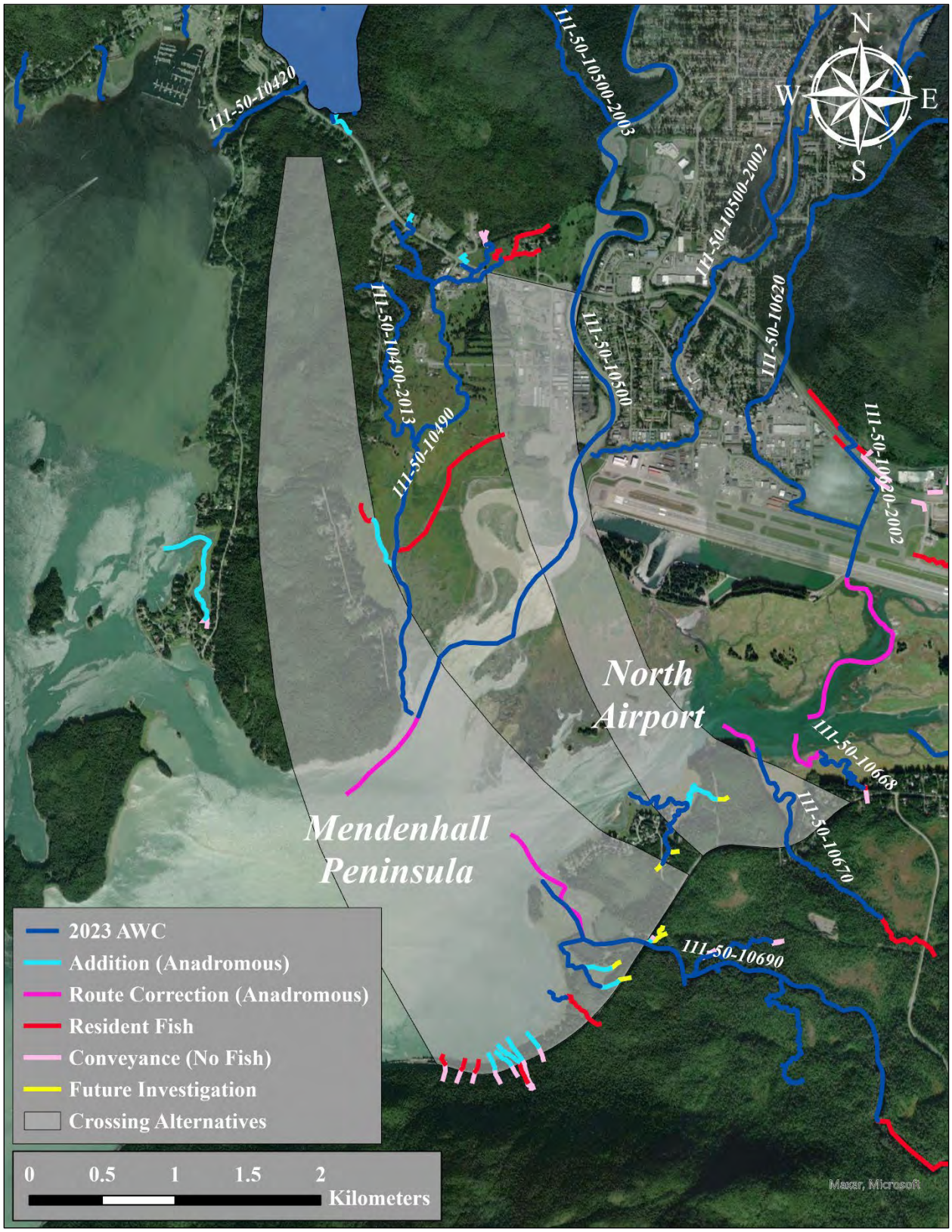
Nomination #	Nomination
24-509	111-50-10490 Tributary 1 Addition
24-510	Fritz Cove Uncataloged Stream Addition
24-511	111-50-10620 Route Correction
24-512	111-40-10100 Route Correction
24-513	111-40-10070 Route Correction
24-514	111-50-10658 Addition
24-515	111-50-10668 Route Correction
24-516	111-50-10680 Tributary 1 Addition
24-517	111-50-10690 Tributary 1 Addition
24-518	111-50-10690-2000 Addition
24-519	111-50-10690-2000 Tributary 1 Addition
24-520	Gastineau Channel Uncataloged Stream Addition 1
24-521	Gastineau Channel Uncataloged Stream Addition 2
24-522	Gastineau Channel Uncataloged Stream Addition 3
24-523	Gastineau Channel Uncataloged Stream Addition 4
24-524	Gastineau Channel Uncataloged Stream Addition 5
24-525	Gastineau Channel Uncataloged Stream Addition 6
24-528	111-50-10690 Route Correction
24-529	111-50-10670 Route Correction
24-530	111-50-10500 Route Correction

Attachments: Appendix A: Second Crossing preliminary alternatives fish use map
AWC Nominations 24-509 through 24-525, and 24-528 through 24-530

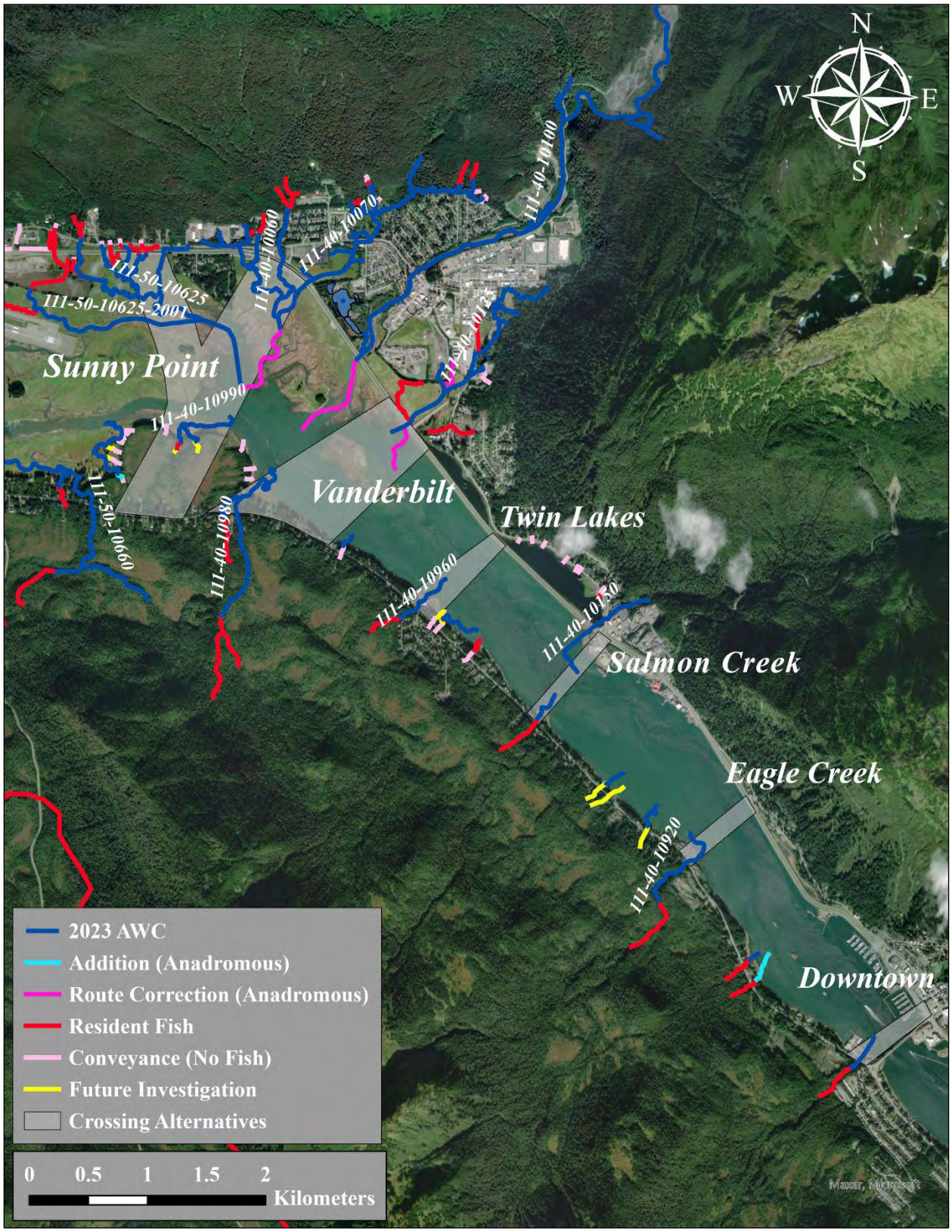
Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Sue Rodman, ADF&G WC, Anchorage
Greg Lockwood, ADOT&PF, Juneau
Ben Storey, ADOT&PF, Juneau
Morgan McCammon, DOWL
Margaret Custer, MWSGR AC, Juneau
Teri Camery, CBJ, Juneau
Mike Salyer, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, Juneau

Appendix A.1.–Second Crossing preliminary alternatives fish use map (West).



Appendix A.2.–Second Crossing preliminary alternatives fish use map (East).



111-50-10490 Tributary 1 ADDITION

Water body name: **Survey date:** 10/26/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.356314 **Longitude:** -134.625316 **Survey crew:** FC
Lower Reach Latitude: 58.353530 **Longitude:** -134.622851
Findings: We surveyed this uncataloged stream using baited minnow traps and GPS. We captured juvenile coho salmon and sculpin. The stream flows through tidally-influenced wetlands near the mouth of the Mendenhall River (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-509

Table 1.–111-50-10490 tributary 1 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1077	58.356318	-134.625337	Minnow trap soaked overnight. Some build-up of ice near trap ports, but 2+-yr CO capture.	2-4	Sand Small Gravel		1-2	MT	3 CO
1078	58.356063	-134.624964	Foot-bridge with "no trespassing" sign.						
1079	58.355289	-134.624839	Minnow trap soaked overnight.		Sand Small Gravel		0-1	MT	1 SC



Figure 1.–Downstream view of tributary 1 at waypoint 1079.



Figure 2.–Juvenile coho salmon captured at waypoint 1077.



Figure 3.–Upstream view of tributary 1 at waypoint 1077.

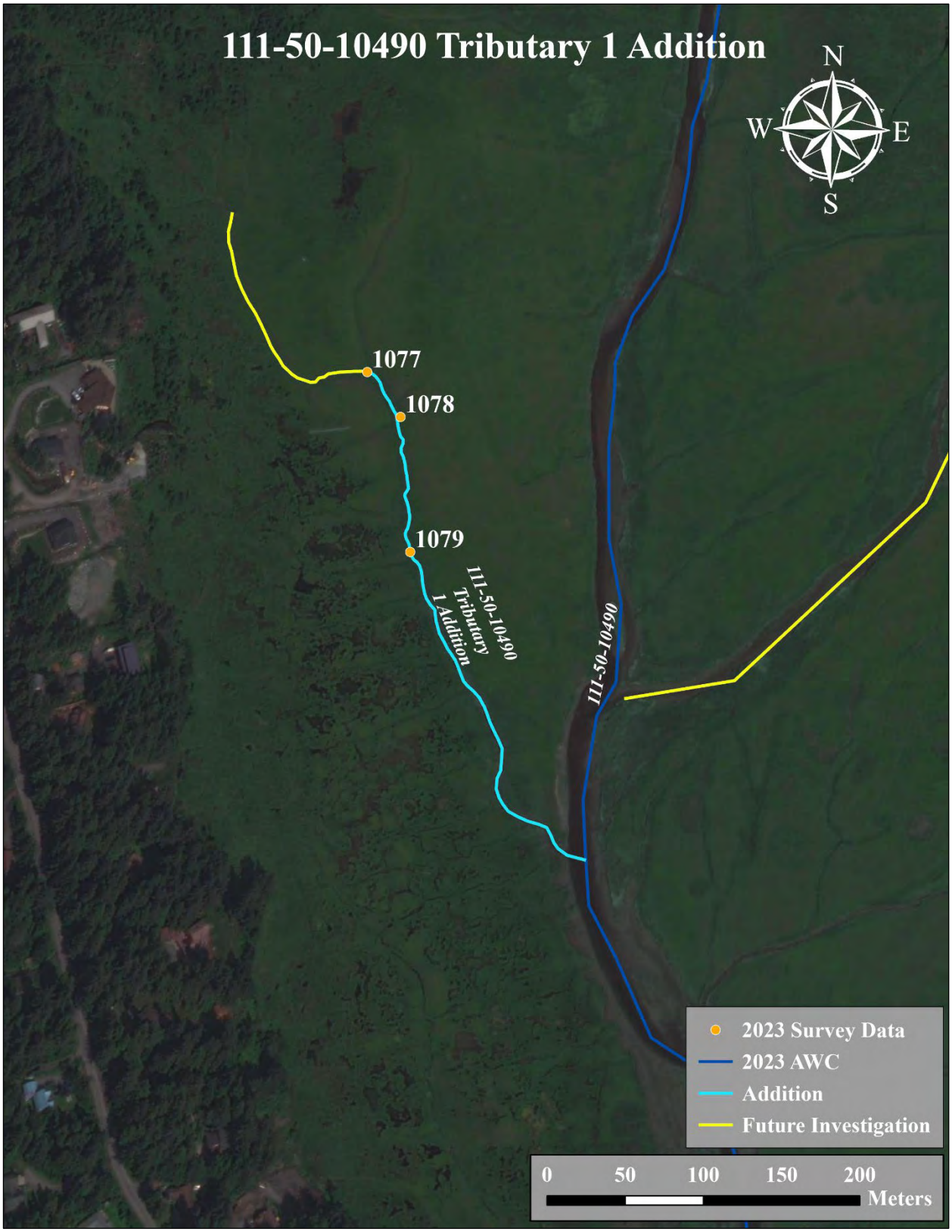


Figure 4.–111-50-10490 tributary 1 addition map.

Fritz Cove Uncataloged Stream ADDITION

Water body name: **Survey date:** 5/17/2022; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.350102 **Longitude:** -134.644896 **Survey crew:** FC, RR
Lower Reach Latitude: 58.354388 **Longitude:** -134.649671
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS and captured juvenile coho salmon. The intertidal portion of the stream can have very little water at most flows, but we were able to trap juvenile coho salmon just downstream of a perched culvert outlet (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon. Please extend stream into the intertidal (Figure 4).
Nomination: 24-510

Table 1.–Fritz Cove uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
144	58.351279	-134.645955	Start survey. In tidal flat, stream level low.	1-2	Sand Clay		0-1	EF	No Fish
145	58.350194	-134.644752	Water level extremely low.	4-6	Small Gravel Sand		1-2	EF	No Fish
146	58.350215	-134.644875							
147	58.350187	-134.644750							
148	58.350138	-134.644853	Small stream flowing out of 1' culvert. 1-2' perch into a pool. Culvert shows evidence of rusting and leaking out of the bottom prior to the opening.	2-4	Large Gravel Small Gravel		4-6	EF	No Fish
149	58.349988	-134.645088	Other side of culvert.					EF	No Fish
150	58.350009	-134.644715	Too low to electrofish.	2-4	Small Gravel Fine Organic		2-4	EF	No Fish
151	58.349628	-134.644710	Stream continues going under woody debris and root systems until it reaches a 1-2' culvert under someone's driveway. Very filled with dirt and debris. Stream looks like good habitat for coho but stream levels very low. Could be good for future investigation in a higher-flow season. End of survey.					EF	No Fish

Table 2.–Continued.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1095	58.350106	-134.644917	Minnow trap soaked ~5 hrs in pool just downstream of 1' CMP perched 18" into pool; set at steep grade and significantly rusted, water leaking out rusted-through bottom prior to outlet and headcutting under culvert.	2-4	Small Gravel Large Gravel		4-6	MT	2 CO
1096	58.349919	-134.644744	Minnow trap soaked ~5 hrs in small pool with cut banks ~40' upstream of culvert inlet.	2-4		Cut Banks	2-4	MT	No Fish



Figure 1.–Culvert outlet at waypoint 1095.



Figure 2.–Juvenile coho salmon captured at waypoint 1095.



Figure 3.–Upstream view of stream at waypoint 1096.



Figure 4.–Fritz Cove uncataloged stream addition map.

111-50-10620 CORRECTION

Water body name: Jordan Creek **Survey date:** 10/26/2023
Quad: Juneau B-2 **Species & Lifestage:** CHp,COp,Ps,Sp,CTp,DVp
Upper Reach Latitude: 58.391234 **Longitude:** -134.555673 **Survey crew:** FC
Lower Reach Latitude: 58.344571 **Longitude:** -134.573882
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-50-10620 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-511

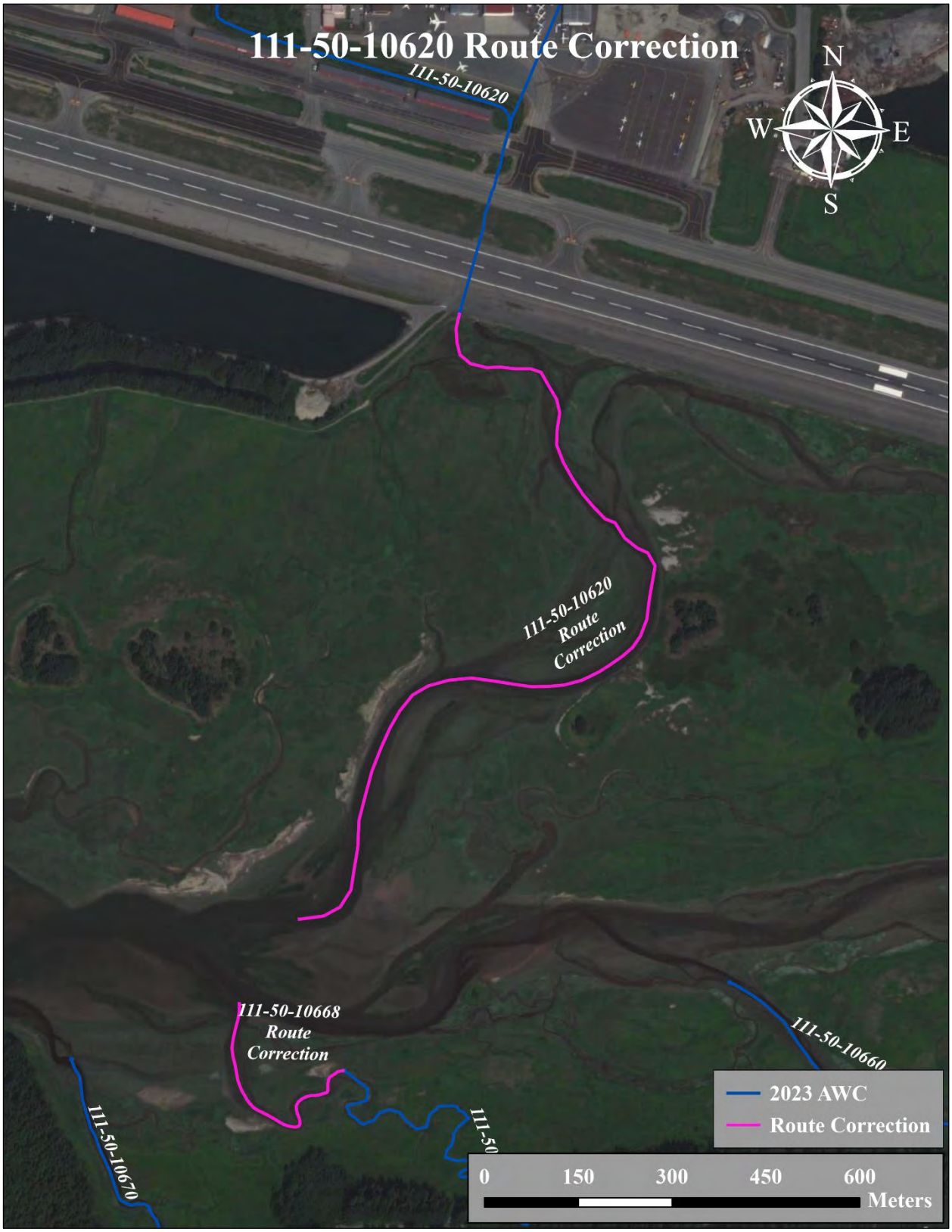


Figure 1.–111-50-10620 route correction map.

111-40-10100 CORRECTION

Water body name: Lemon Creek **Survey date:** 10/26/2023
Quad: Juneau B-2 **Species & Lifestage:** CHs,COp,Pp,DVp
Upper Reach Latitude: 58.379144 **Longitude:** -134.442721 **Survey crew:** FC
Lower Reach Latitude: 58.345193 **Longitude:** -134.516150
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-40-10100 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-512



Figure 1.–111-40-10100 route correction map.

111-40-10070 CORRECTION

Water body name: Switzer Creek **Survey date:** 10/26/2023
Quad: Juneau B-2 **Species & Lifestage:** CHp,COp,Pp,Sp,CTr,DVp
Upper Reach Latitude: 58.365839 **Longitude:** -134.499573 **Survey crew:** FC
Lower Reach Latitude: 58.348174 **Longitude:** -134.524847
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-40-10070 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-513

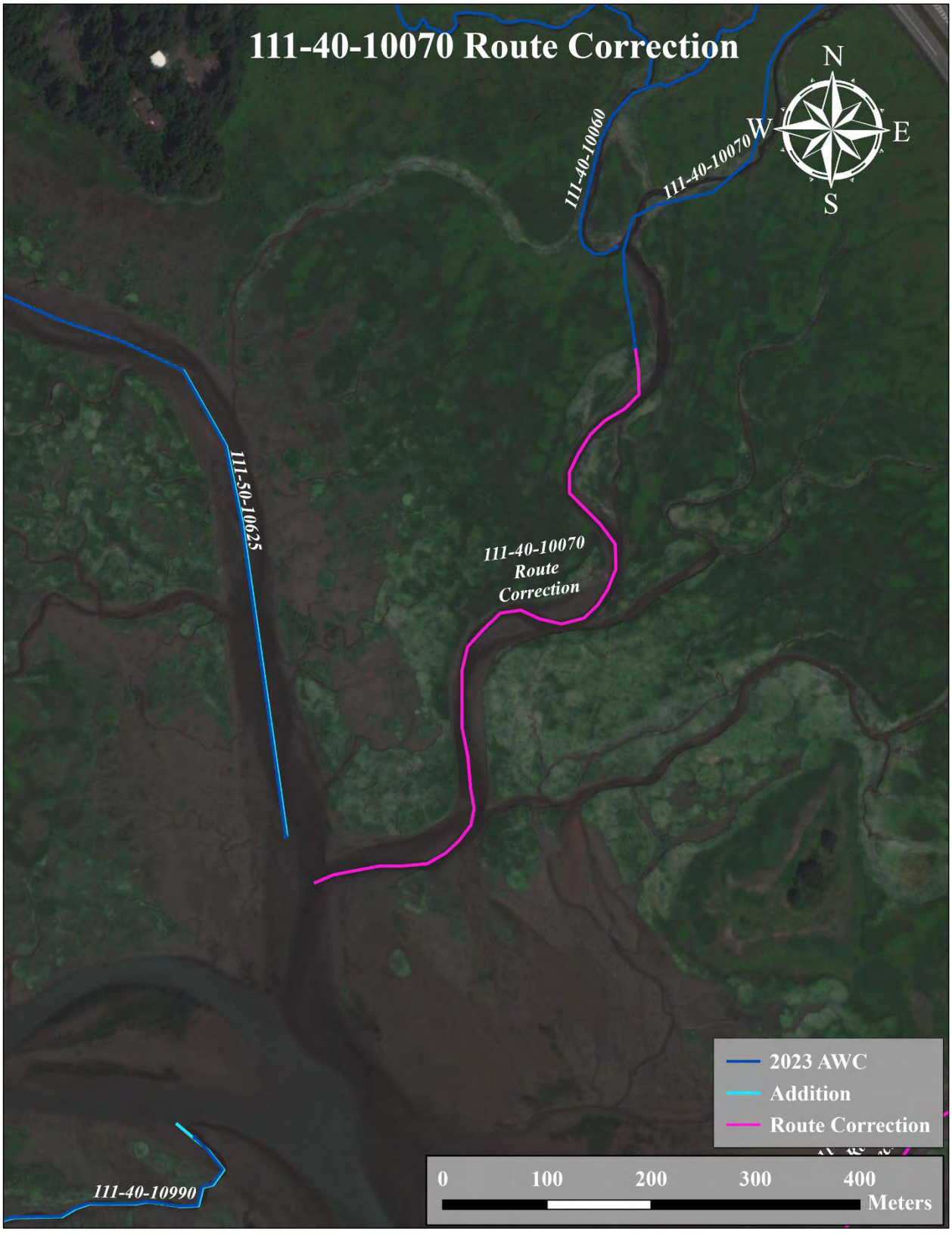


Figure 1.–111-40-10070 route correction map.

111-50-10658 ADDITION

Water body name: **Survey date:** 10/23/2023
Quad: Juneau B-2 **Species & Lifestage:** COr
Upper Reach Latitude: 58.341320 **Longitude:** -134.542263 **Survey crew:** FC
Lower Reach Latitude: 58.345332 **Longitude:** -134.544630
Findings: We surveyed this cataloged stream using a backpack electrofisher and GPS and captured juvenile coho salmon. The stream flows through a reach of sporadic subterranean channels and descends a hillside with 4-8% gradient prior to emerging from the forest and into intertidal wetlands (Table 1; Figures 1–3).
Recommendations: Extend upper extent of Stream No. 111-50-10658 in the anadromous waters catalog (Figure 4).
Nomination: 24-514

Table 1.–111-50-10658 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1055	58.341324	-134.542284	1-yr CO capture despite gradient increase. Small pools with rearing habitat persist sporadically up to here, becoming sparse upstream where stream splits into main and tributary, both with increasingly subterranean flow. Not worth future investigation unless at high flows and already in area.	2-4	Small Gravel Fine Organic	Cut Banks	4-6	EF	2 CO



Figure 1.–Juvenile coho salmon captured at waypoint 1055.



Figure 2.–Downstream view of Stream No. 111-50-10658 at waypoint 1055.



Figure 3.–Upstream view of Stream No. 111-50-10658 at waypoint 1055.

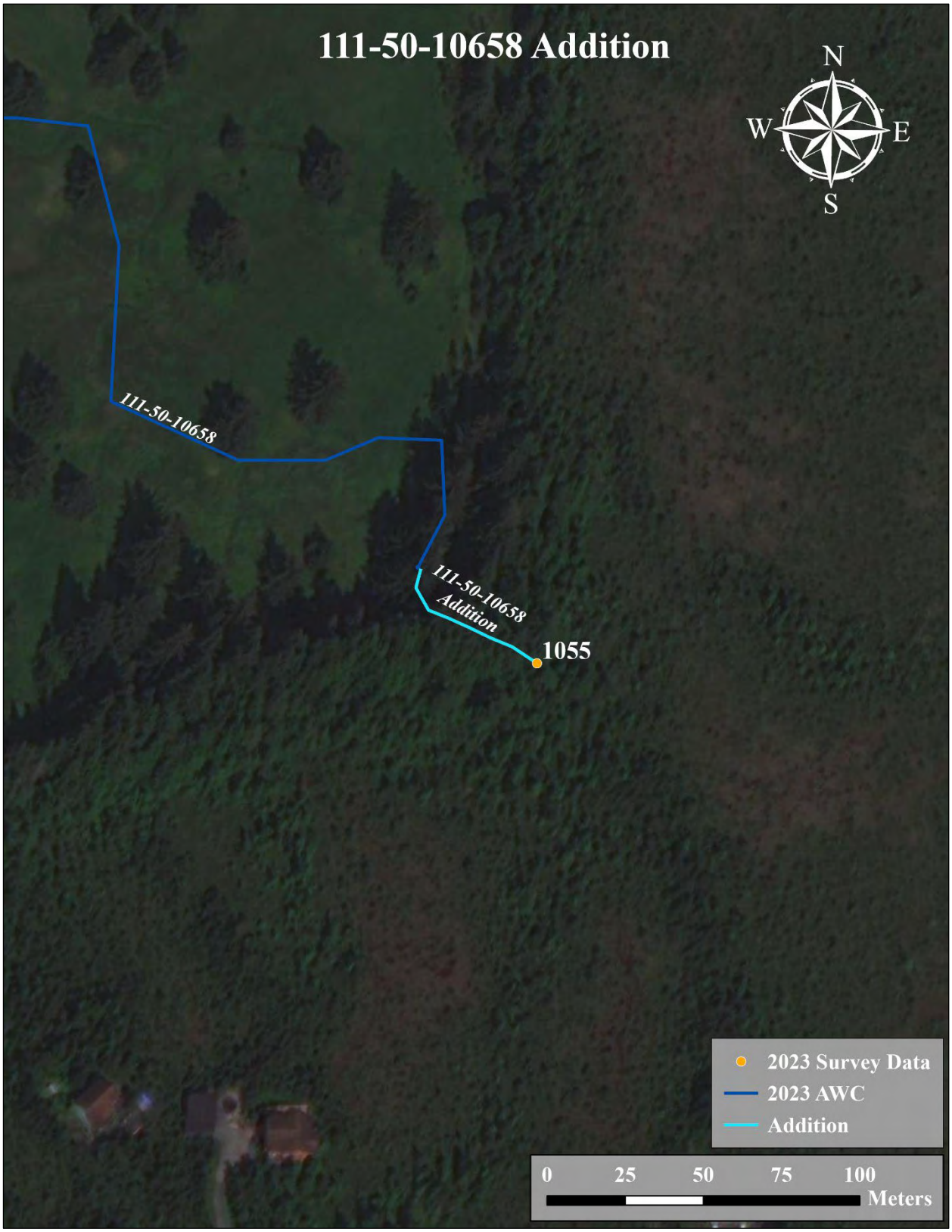


Figure 4.–Stream No. 111-50-10658 addition map.

111-50-10668 CORRECTION

Water body name: **Survey date:** 10/20/2023
Quad: Juneau B-2 **Species & Lifestage:** COr
Upper Reach Latitude: 58.340254 **Longitude:** -134.567515 **Survey crew:** FC
Lower Reach Latitude: 58.343372 **Longitude:** -134.575450
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-50-10668 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-515



Figure 1.–111-50-10668 route correction map.

111-50-10680 Tributary 1 ADDITION

Water body name: **Survey date:** 5/12/2022; 10/20/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.339439 **Longitude:** -134.584823 **Survey crew:** FC, RR
Lower Reach Latitude: 58.339118 **Longitude:** -134.588109
Findings: We surveyed this uncataloged stream using a backpack electrofisher and GPS and captured juvenile coho salmon. The stream has marginal habitat upstream of a small culvert where the channel becomes overcrowded by woody debris, but has quality rearing habitat downstream to the confluence with a cataloged stream (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-516

Table 1.–111-50-10680 tributary 1 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
135	58.339072	-134.587704	Start of survey.	12-15	Clay			EF	No Fish
136	58.340137	-134.587368	Stream about to enter woods.	1-2	Large Gravel Cobble		4-6	EF	No Fish
137	58.339993	-134.586383	Stream entering wooded area. No fish found. Good spawning substrate present with pools. Seems like good habitat for coho. No fish found. End of survey.	1-2	Small Gravel	Spawning Substrate	6-8	EF	No Fish
1039	58.339875	-134.586253	1- to 2-yr CO capture ~20' upstream of tree-line where stream enters and meanders through wetland to join cataloged stream. Advancing upstream.	4-6	Small Gravel Fine Organic	SWD	1-2	EF	2 CO
1040	58.339685	-134.585513	Very slight increase in gradient compared to downstream. Good quality rearing habitat with lots of cut banks. Continued CO capture.	2-4	Small Gravel Fine Organic	Cut Banks SWD	2-4	EF	2 CO

Table 2.–Continued.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1041	58.339455	-134.584845	Continued CO capture ~15' downstream of culvert at road crossing. Quality rearing habitat persists up to this point, interspersed with small stretches of subterranean flow. Between here and culvert outlet, the channel is overcrowded by overgrown roots, brush, and riprap nearer outlet. Marginal habitat upstream of pipe. Shocked several pools upstream of pipe; no fish observed.	1-2	Small Gravel Fine Organic	Cut Banks SWD	2-4	EF	2 CO



Figure 1.–Juvenile coho salmon captured at waypoint 1039.



Figure 2.–Tributary 1 at waypoint 1040.



Figure 3.–Overcrowded channel just downstream of culvert outlet at waypoint 1041.

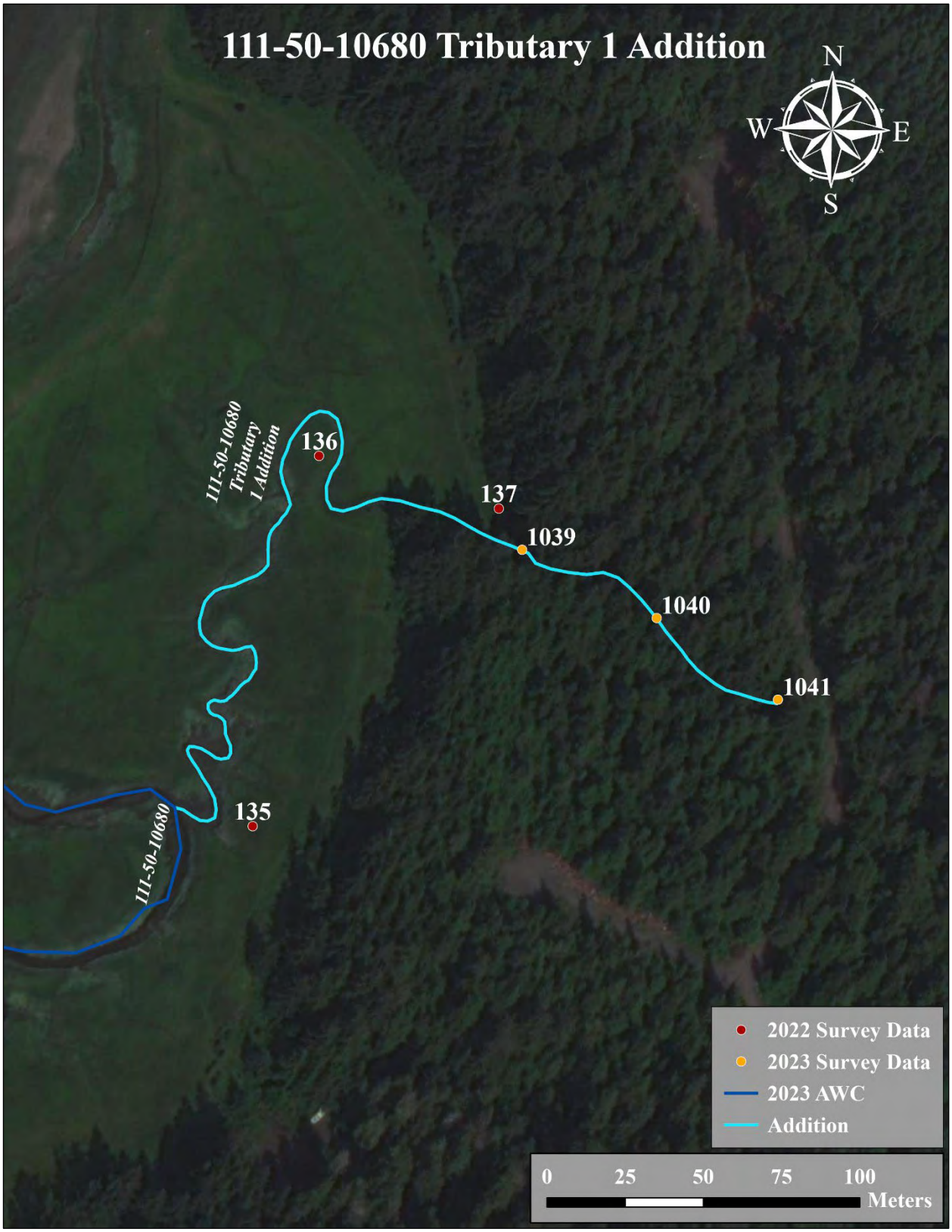


Figure 4.–111-50-10680 tributary 1 addition map.

111-50-10690 Tributary 1 ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.330622 **Longitude:** -134.592248 **Survey crew:** FC
Lower Reach Latitude: 58.330431 **Longitude:** -134.592438
Findings: We surveyed this uncataloged stream using baited minnow traps and GPS and captured juvenile coho salmon. The tributary stream flows around the base of a roadside hill and has potentially viable rearing habitat upstream of where fish were captured (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-517

Table 1.–111-50-10690 tributary 1 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1020	58.330627	-134.592268	Minnow trap soaked ~4 hrs in river-right tributary of Fish Creek ~60' upstream of confluence; ~18" drop falls with fast flow at outlet of tributary. CO capture; one fell from trap. Secondary tributary on river-right where water seeps out of hillside ~100-150' upstream. Main flow in this tributary veers river-left around base of hillside and becomes more channelized with some intermittent subterranean flow.	8-10	Fine Organic		1-2	MT	2 CO
1097	58.330845	-134.591947	Stream seeps out of hillside here, with uphill gradient increasing; also fairly disconnected from downstream at current low flow. Joins / is fed by runoff from roadside ditch just downstream. Too little water here at current low flow to trap.				6-8	Not Fished	

Table 2.–Continued.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1098	58.330750	-134.591605	Minnow trap soaked in pool overnight. Stream more channelized and with more gravel sediment and rearing habitat (cut banks) compared to downstream. Gradient increases slightly upstream.	6-8	Small Gravel Large Gravel	Cut Banks	2-4	MT	No Fish
1099	58.330987	-134.591023	Minnow trap soaked overnight in pool near confluence with tributary that appears as a seep at current low flow (little diffuse water that regularly flows under ground, but continues a ways; may want to follow up at higher flow). Quality habitat continues upstream on main channel.			Cut Banks		MT	No Fish
1100	58.331483	-134.590833	Minnow trap soaked overnight in small pool ~20' downstream of small woody debris jam. Should continue surveying upstream if fish are caught here as jam is not likely to block passage and quality rearing habitat continues.	4-6	Large Gravel Small Gravel	Cut Banks	4-6	MT	No Fish



Figure 1.–Small falls at confluence of tributary 1 and main channel downstream of waypoint 1020.



Figure 2.–Juvenile coho salmon captured at waypoint 1020.

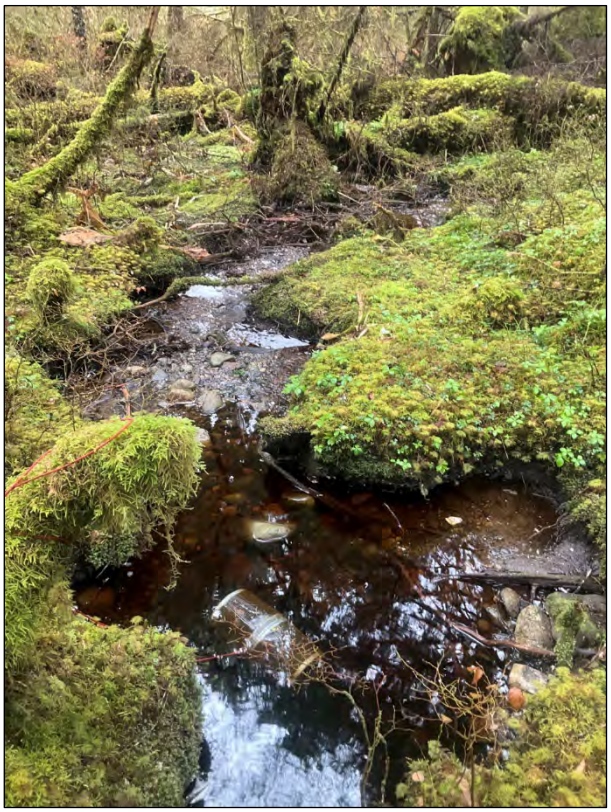


Figure 3.–Downstream view of re-channelized stream at waypoint 1098.

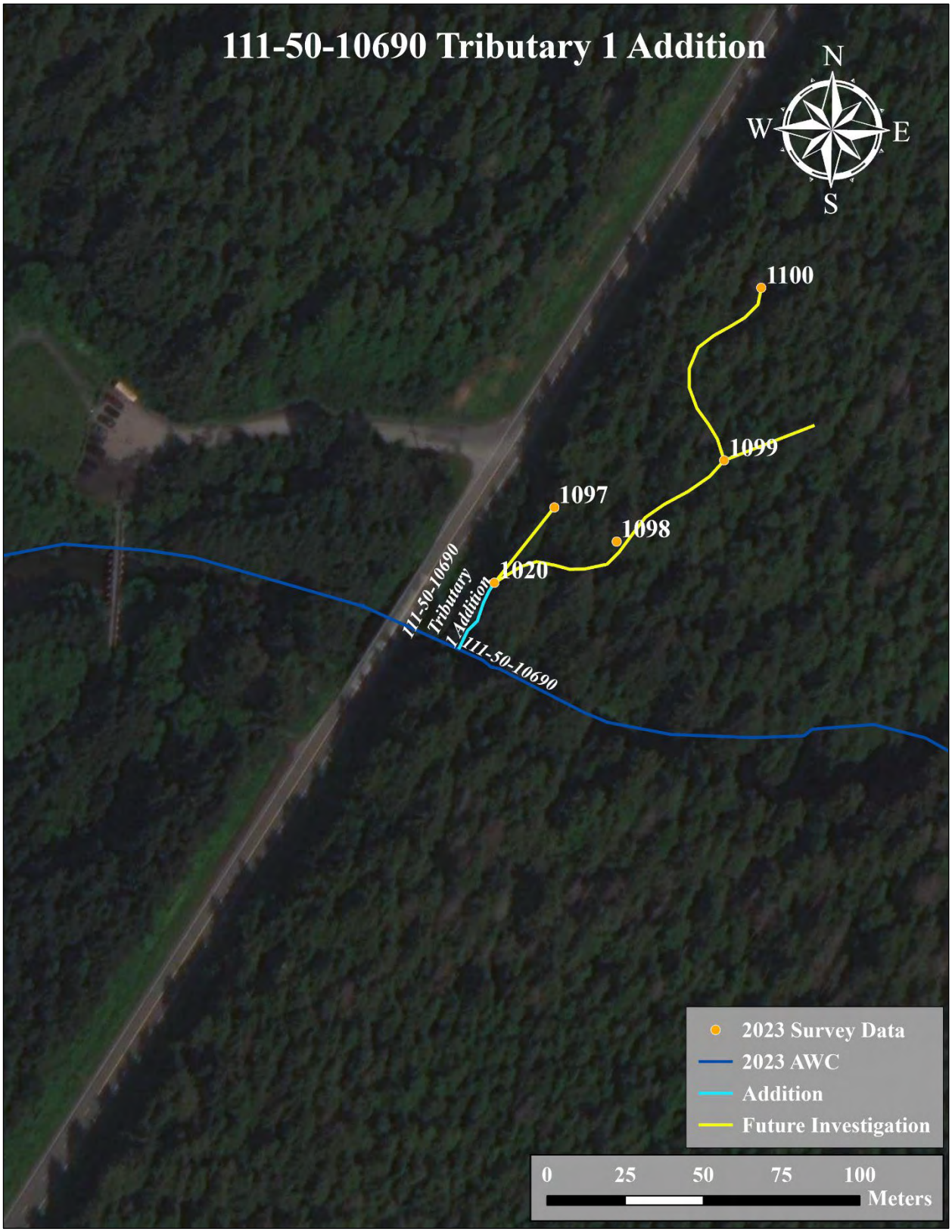


Figure 4.–111-50-10690 tributary 1 addition map.

111-50-10690-2000 ADDITION

Water body name: **Survey date:** 10/19/2023
Quad: Juneau B-2 **Species & Lifestage:** COr
Upper Reach Latitude: 58.328105 **Longitude:** -134.595971 **Survey crew:** FC
Lower Reach Latitude: 58.327814 **Longitude:** -134.598018
Findings: We surveyed this cataloged stream using baited minnow traps and GPS. We captured juvenile coho salmon and juvenile cutthroat trout. The stream flows through a 3-foot plastic culvert and through intertidal wetlands prior to emptying into Fish Creek (Table 1; Figures 1–3).
Recommendations: Extend upper extent of Stream No. 111-50-10690-2000 in the anadromous waters catalog (Figure 4).
Nomination: 24-518

Table 1.–111-50-10690-2000 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1018	58.328245	-134.595770	Outlet of 3' smooth-walled plastic pipe culvert crossing Douglas Hwy. Outlet poorly aligned with stream.	4-6	Fine Organic		4-6		
1019	58.328109	-134.595992	Minnow trap soaked ~40' downstream of culvert outlet for ~4 hrs.	4-6	Fine Organic Small Gravel		4-6	MT	29 CO 1 CT



Figure 1.–Outlet of poorly-aligned culvert at waypoint 1018.



Figure 2.–Juvenile coho salmon captured at waypoint 1019.



Figure 3.–Upstream view of Stream No. 111-50-10690-2000 at waypoint 1019.

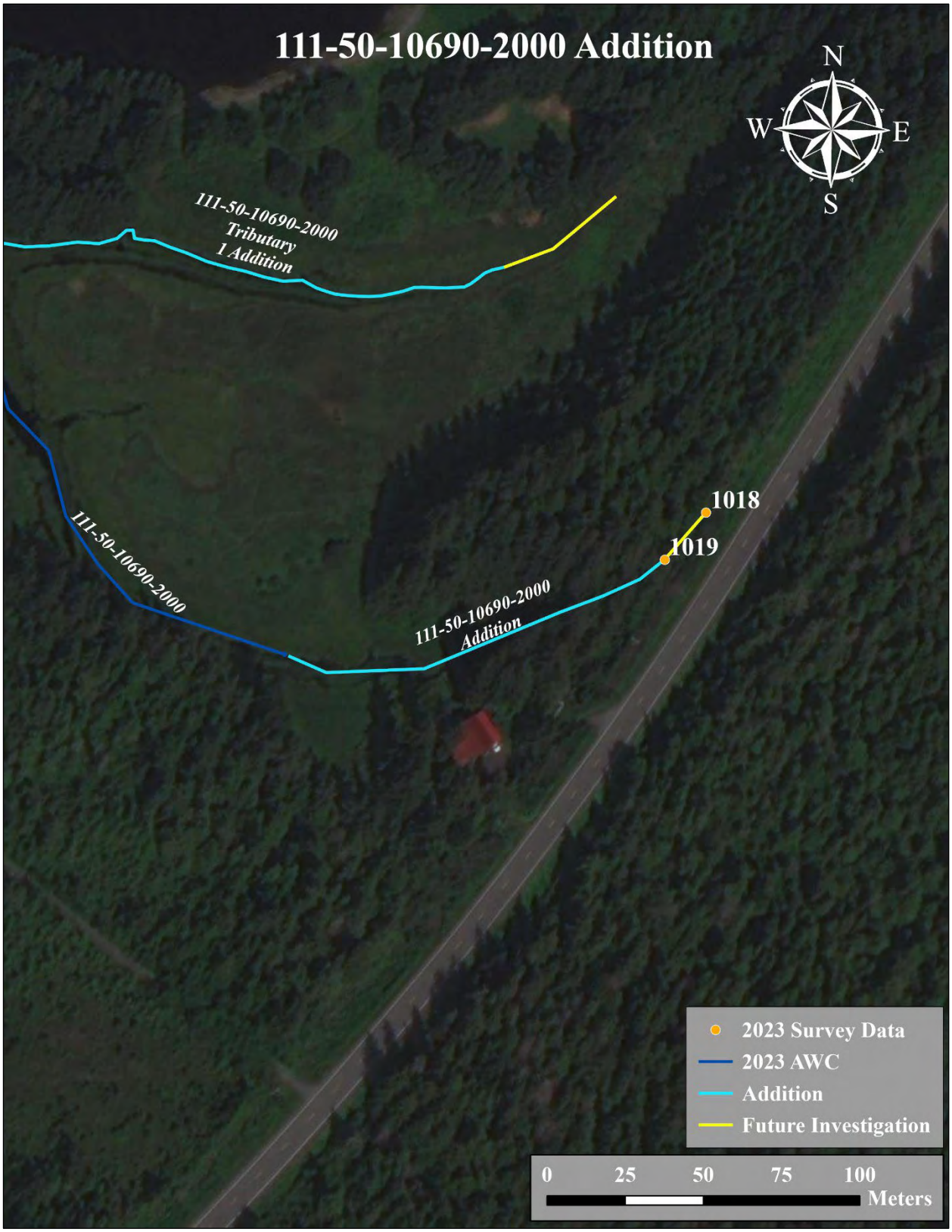


Figure 4.–Stream No. 111-50-10690-2000 addition map.

111-50-10690-2000 Tributary 1 ADDITION

Water body name: **Survey date:** 10/19/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.328937 **Longitude:** -134.596869 **Survey crew:** FC
Lower Reach Latitude: 58.328932 **Longitude:** -134.599869
Findings: We surveyed this uncataloged stream using baited minnow traps and GPS. We captured juvenile coho salmon and stickleback. The tributary stream has largely stagnant flow through the intertidal prior to joining a cataloged tributary of Fish Creek (Table 1; Figures 1, 2).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 3).
Nomination: 24-519

Table 1.–111-50-10690-2000 tributary 1 survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1016	58.328971	-134.596916	Minnow trap soaked ~4 hrs.	4-6	Fine Organic		0-1	MT	85 CO 90 SB
1017	58.329048	-134.598894	Minnow trap soaked ~4 hrs. Stagnant stream connected to cataloged channel; not quite connected to large pond on river-right here at current flows, but might be if flow was a little higher.	20-25	Fine Organic		0-1	MT	29 CO 25 SB



Figure 1.–Downstream view of tributary 1 at waypoint 1017.



Figure 2.–Juvenile coho salmon captured at waypoint 1016.



Figure 3.–111-50-10690-2000 tributary 1 addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.322697 **Longitude:** -134.610239 **Survey crew:** FC
Lower Reach Latitude: 58.323506 **Longitude:** -134.610937
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS. We captured juvenile coho salmon and sculpin. The stream falls out of a significantly perched 2-foot plastic culvert and flows down a steep-gradient hillside, with gradient becoming less severe as it approaches the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-520

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1026	58.322903	-134.610388	Started shocking here near tree-line. 1-yr CO capture; advancing upstream.	2-4	Small Gravel Large Gravel	Cut Banks	4-6	EF	1 CO 6 SC
1027	58.322701	-134.610259	Continued 1-yr CO capture.	6-8	Large Gravel Small Gravel	Cut Banks	4-6	EF	2 CO
1028	58.322610	-134.610248	Gradient increase compared to just downstream flowing from pool fed by water falling out of 2’ smooth-walled plastic pipe culvert onto riprap. Shocked pool and just downstream; no fish.	4-6	Large Gravel Cobble		8-10	EF	No Fish
1105	58.322320	-134.610164	Minnow trap soaked overnight at culvert inlet.					MT	No Fish



Figure 1.–Juvenile coho salmon captured at waypoint 1027.



Figure 2.–Downstream view of stream at waypoint 1027.



Figure 3.–Perched culvert outlet and conveyance stream at waypoint 1028.



Figure 4.–Gastineau Channel uncataloged stream addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.322943 **Longitude:** -134.608386 **Survey crew:** FC
Lower Reach Latitude: 58.323658 **Longitude:** -134.610051
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS. We captured juvenile coho salmon and sculpin. The stream falls out of a 3-foot plastic culvert with 4-foot perch and flows down a hillside, with gradient becoming less severe as it approaches the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-521

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1029	58.323270	-134.609158	1-yr CO capture at tree-line in small stream running through wetland beach with cut banks. Advancing upstream.	2-4	Small Gravel	Cut Banks	2-4	EF	3 CO 12 SC
1030	58.322947	-134.608406	Only SC captured between downstream waypoint at tree-line and here, but then continued CO capture in pool directly below 3' smooth-walled plastic pipe culvert with 4' perch, falls onto riprap / into pool. One CO dropped from net. Downstream gradient from road to tree-line is not quite as steep as nearby streams to the west.	8-10	Small Gravel Large Gravel		4-6	EF	2 CO 1 SC
1104	58.322701	-134.608125	Minnow trap soaked overnight at culvert inlet.					MT	No Fish



Figure 1.–Juvenile coho salmon captured at waypoint 1029.



Figure 2.–Downstream view of stream at waypoint 1030.



Figure 3.–Perched culvert outlet at waypoint 1030.



Figure 4.–Gastineau Channel uncataloged stream addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.323122 **Longitude:** -134.607476 **Survey crew:** FC
Lower Reach Latitude: 58.324056 **Longitude:** -134.609808
Findings: We surveyed this cataloged stream using baited minnow traps and GPS. We captured juvenile coho salmon, Dolly Varden, cutthroat trout, and sculpin. The stream flows down a hillside, through a 4-foot culvert with 2-foot perch, and into the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-522

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1035	58.323352	-134.608076	Minnow trap soaked overnight.	12-15	Large Gravel Small Gravel	Cut Banks SWD	4-6	MT	1 SC
1036	58.323126	-134.607497	Minnow trap soaked overnight ~20' downstream of 4' CMP with no gravel infill, water rushing out fast and falling over 2' perch onto riprap / into pool. Flow decreased overnight and trap openings were out of water upon checking. Trap reset for ~4 hrs; 2-yr CO capture.	10-12	Large Gravel Small Gravel	Cut Banks SWD	6-8	MT	2 CO 2 DV 1 CT
1037	58.323478	-134.608644	Waypoint for reference of stream outlet. Stream braids into two separate outlets at current high flows.						

Table 2.–Continued.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1101	58.322794	-134.607217	Minnow trap soaked overnight in first decent pool ~30' upstream of culvert inlet. Grade of stream (slightly incised upstream) and even hillside in general is not as steep as expected. Sediment size may be a little large and flow a little fast to be ideal (esp. near culvert influence), but this could be good coho habitat if pipe wasn't blocking passage. Advancing upstream.	10-12	Cobble Large Gravel	Cut Banks	6-8	MT	No Fish
1102	58.322533	-134.607086	Minnow trap soaked overnight in pool just downstream of log jam. Some flow falls over log jam but primarily skirts around and underneath log to river-right.	12-15	Large Gravel Cobble	Cut Banks Log Jams	6-8	MT	2 DV
1103	58.321891	-134.606427	Minnow trap soaked overnight in pool ~30' downstream of large jam of multiple logs restraining and accumulating boulder and cobble sediment with vegetative growth throughout. Just upstream of jam, grade levels out briefly due to accumulated rocky sediment, but stream is buried under; reappears ~40' upstream of jam.	12-15	Large Gravel Small Gravel	Cut Banks Log Jams	6-8	MT	No Fish
1127	58.321478	-134.605959	Stream flows out from woody debris jam at side of bedrock cliff face.	6-8	Cobble Large Gravel	Incised Channel	12-15	Not Fished	



Figure 1.–Upstream view of stream at waypoint 1035.



Figure 2.–Juvenile coho salmon captured at waypoint 1036.



Figure 3.–Perched culvert outlet at waypoint 1036.

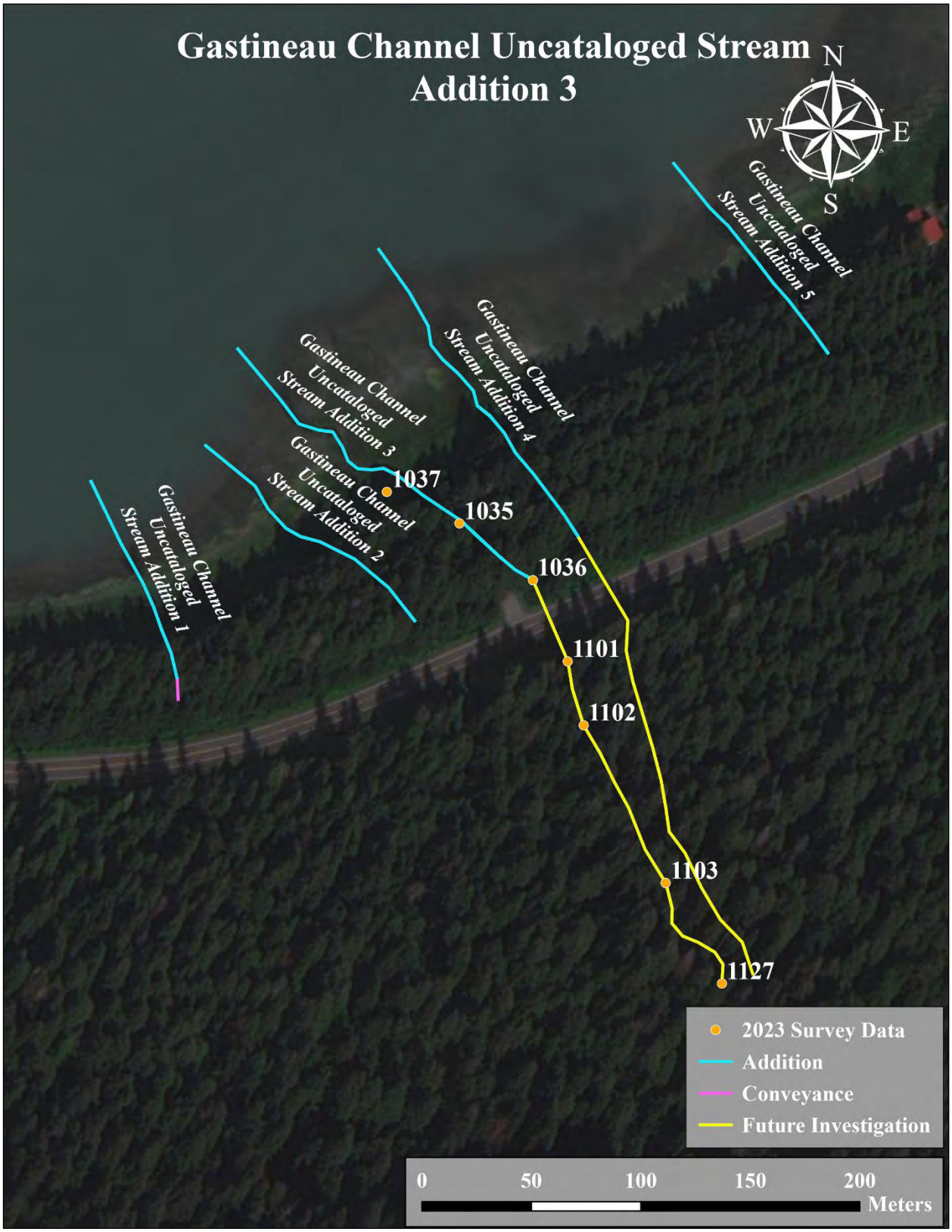


Figure 4.–Gastineau Channel uncataloged stream addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.323300 **Longitude:** -134.607125 **Survey crew:** FC
Lower Reach Latitude: 58.324472 **Longitude:** -134.608719
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS. We captured juvenile coho salmon and sculpin. The stream flows down a hillside, through a 2-foot culvert perched over riprap, and into the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-523

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1033	58.323892	-134.607895	Old abandoned boat in tidal outlet of stream.						
1034	58.323304	-134.607146	1- to 2-yr CO capture once slow-flow rearing habitat became more available compared to downstream. ~60' downstream of outlet of 2' smooth-walled plastic pipe culvert, perched with water falling onto riprap.	6-8	Small Gravel Fine Organic		4-6	EF	2 CO 5 SC
1106	58.322965	-134.606752	Minnow trap soaked overnight ~40' upstream of culvert inlet.					MT	No Fish
1125	58.321871	-134.606129	Separate stream from nearest waypoint. Gradient rapidly increasing upstream; waterfall in view.	12-15	Cobble Boulder	Incised Channel Cut Banks	6-8	Not Fished	
1126	58.321515	-134.605715	20+' bedrock waterfall.	8-10	Cobble Boulder	Incised Channel LWD	20-25	Not Fished	



Figure 1.–Juvenile coho salmon captured at waypoint 1034.



Figure 2.–Downstream view of stream at waypoint 1034.



Figure 3.–Perched culvert outlet at waypoint 1034.

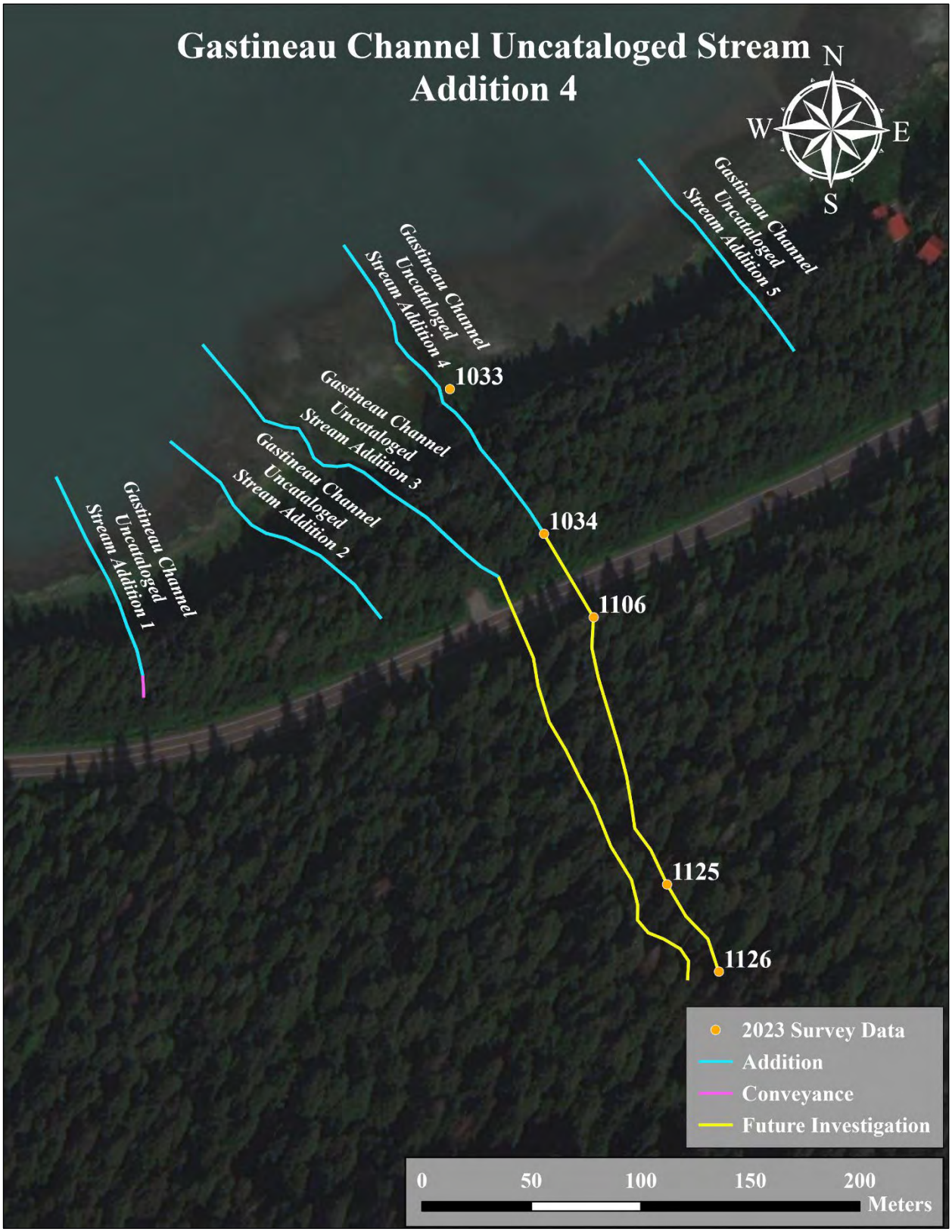


Figure 4.–Gastineau Channel uncataloged stream addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/19/2023; 10/31/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.324063 **Longitude:** -134.605194 **Survey crew:** FC
Lower Reach Latitude: 58.324841 **Longitude:** -134.606429
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS. We captured juvenile coho salmon and sculpin. The stream flows down a hillside, through a culvert and over a small falls prior to emptying into the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-524

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1031	58.324067	-134.605215	1- to 2-yr CO capture in small side pool with considerably less flow than rest of stream, just downstream of 2-3' falls which may block juvenile fish passage. Unable to catch fish above falls at current high flows.	6-8	Small Gravel Large Gravel		4-6	EF	2 CO 6 SC
1032	58.324396	-134.605614	Waypoint for reference of stream outlet.						
1107	58.323541	-134.604738	Minnow trap soaked overnight at culvert inlet.					MT	No Fish



Figure 1.–Juvenile coho salmon captured at waypoint 1031.



Figure 2.–Downstream view of stream at waypoint 1031.



Figure 3.–Upstream view of stream with small falls at waypoint 1031.



Figure 4.–Gastineau Channel uncataloged stream addition map.

Gastineau Channel Uncataloged Stream ADDITION

Water body name: **Survey date:** 10/24/2023
Quad: Juneau B-2 **Species & Lifestage:**
Upper Reach Latitude: 58.303782 **Longitude:** -134.449679 **Survey crew:** FC
Lower Reach Latitude: 58.305693 **Longitude:** -134.448037
Findings: We surveyed this cataloged stream using a backpack electrofisher, baited minnow traps, and GPS. We captured juvenile coho salmon, Dolly Varden, and sculpin. The stream falls out of a perched culvert into a small pool and through a channel dominated by boulder and cobble sediment prior to dropping into the intertidal (Table 1; Figures 1–3).
Recommendations: Add this uncataloged stream to the anadromous waters catalog for rearing coho salmon (Figure 4).
Nomination: 24-525

Table 1.–Gastineau Channel uncataloged stream survey data.

Waypoint	Latitude	Longitude	Notes	Stream Width ft	Stream Substrate	Habitat Features	Gradient %	Sample Effort	Sample Results
1059	58.303754	-134.449741	Resident fish capture (one DV ~6" long). Gradient increases upstream of here and channel becomes increasingly bedrock-dominated prior to leveling out somewhat near culvert outlet.	8-10	Cobble Small Gravel		10-12	EF	3 DV
1060	58.303768	-134.449659		8-10	Large Gravel Cobble		8-10	EF	2 CO 3 DV 3 SC
1067	58.303661	-134.449908	Minnow trap soaked overnight.					MT	No Fish
1068	58.303459	-134.450153	Minnow trap soaked overnight in large pool just downstream of culvert outlet.					MT	4 DV



Figure 1.–Perched culvert outlet and pool at waypoint 1068.



Figure 2.–Juvenile coho salmon captured at waypoint 1060.



Figure 3.–Upstream view of stream at waypoint 1060.

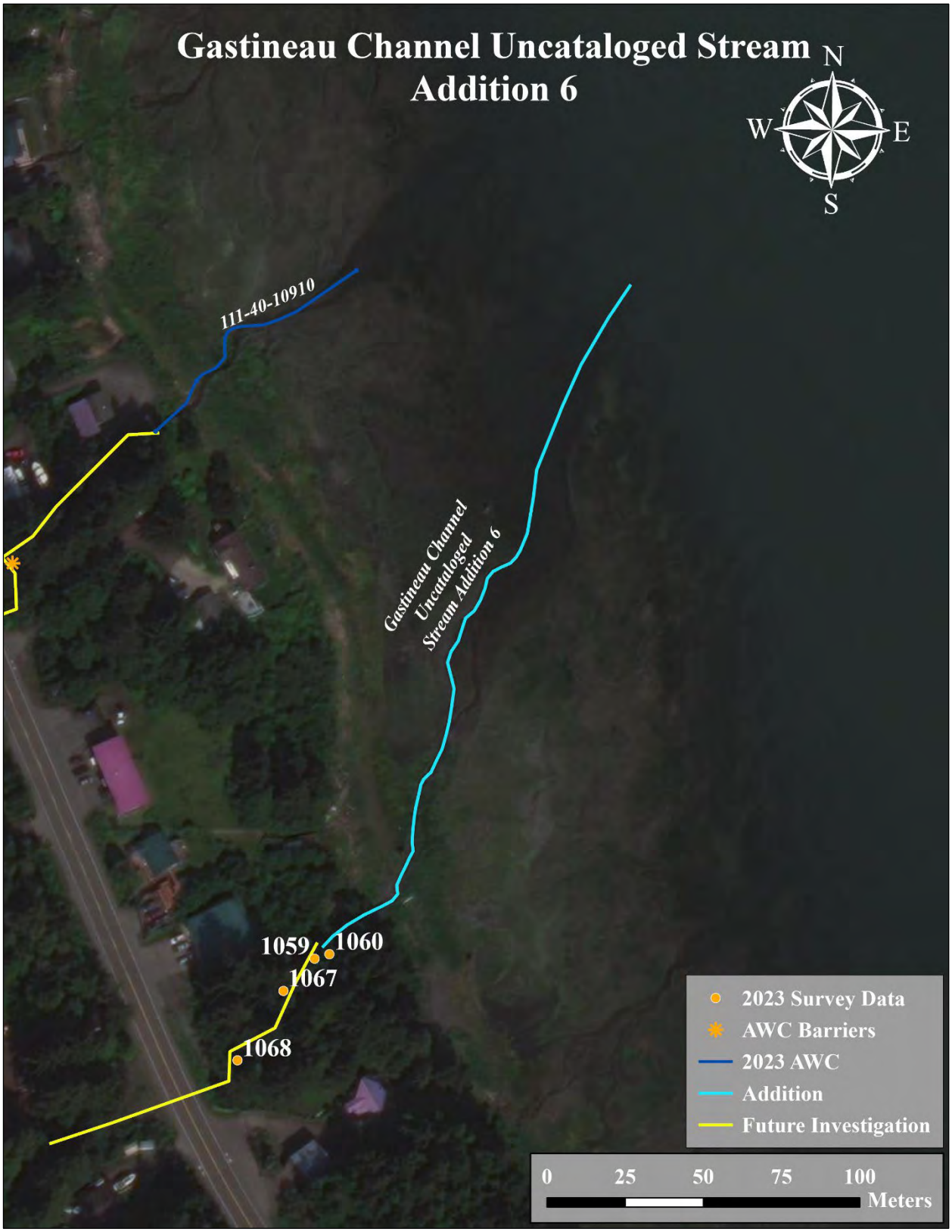


Figure 4.–Gastineau Channel uncataloged stream addition map.

111-50-10690 CORRECTION

Water body name: Fish Creek **Survey date:** 10/19/2023
Quad: Juneau B-2 **Species & Lifestage:** CHp,COpr,Kp,Pp,CTp,DVp,SHrs
Upper Reach Latitude: 58.319793 **Longitude:** -134.565299 **Survey crew:** FC
Lower Reach Latitude: 58.337027 **Longitude:** -134.608549
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-50-10690 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-528



Figure 1.–111-50-10690 route correction map.

111-50-10670 CORRECTION

Water body name: Ninemile Creek **Survey date:** 10/20/2023
Quad: Juneau B-2 **Species & Lifestage:** CHs,COpr,Pp,DVp
Upper Reach Latitude: 58.332304 **Longitude:** -134.565214 **Survey crew:** FC
Lower Reach Latitude: 58.343916 **Longitude:** -134.583814
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-50-10670 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-529

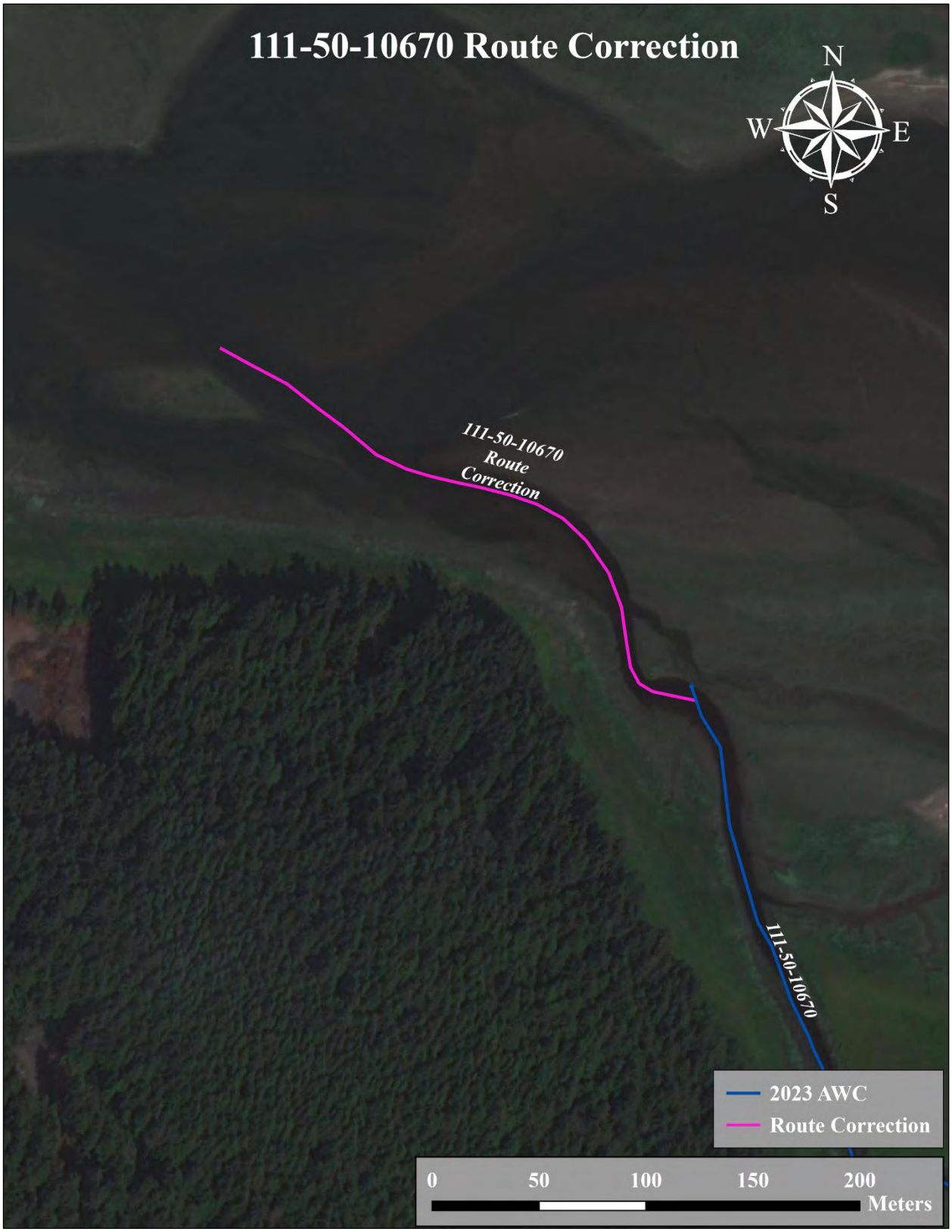


Figure 1.–111-50-10670 route correction map.

111-50-10500 CORRECTION

Water body name: Mendenhall River **Survey date:** 10/26/2023
Quad: Juneau B-2 **Species & Lifestage:** CHp,COp,Kp,Pp,Sp,CTp,DVp,SHp
Upper Reach Latitude: 58.412721 **Longitude:** -134.577670 **Survey crew:** FC
Lower Reach Latitude: 58.339484 **Longitude:** -134.627903
Findings: We surveyed this cataloged stream and found that the stream path is incorrectly mapped. The lower reach of the stream should be extended for clarification, particularly in light of potential alternatives identified for eventual construction of a second bridge crossing between Juneau and Douglas.
Recommendations: Correct Stream No. 111-50-10500 in the anadromous waters catalog to reflect the field verified stream path. Please extend stream into the intertidal (Figure 1).
Nomination: 24-530



Figure 1.–111-50-10500 route correction map.

From: Storey, Benjamin M (DOT)
To: Lindgren, Jesse W (DFG); Lockwood, Gregory K (DOT)
Cc: Casey, Flynn F (DFG); Morgan McCammon
Subject: [EXT] RE: Juneau Douglas Second Crossing Fish Use- Map Package
Date: Friday, January 26, 2024 1:34:16 PM

You don't often get email from benjamin.storey@alaska.gov. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Received, thank you!

Ben

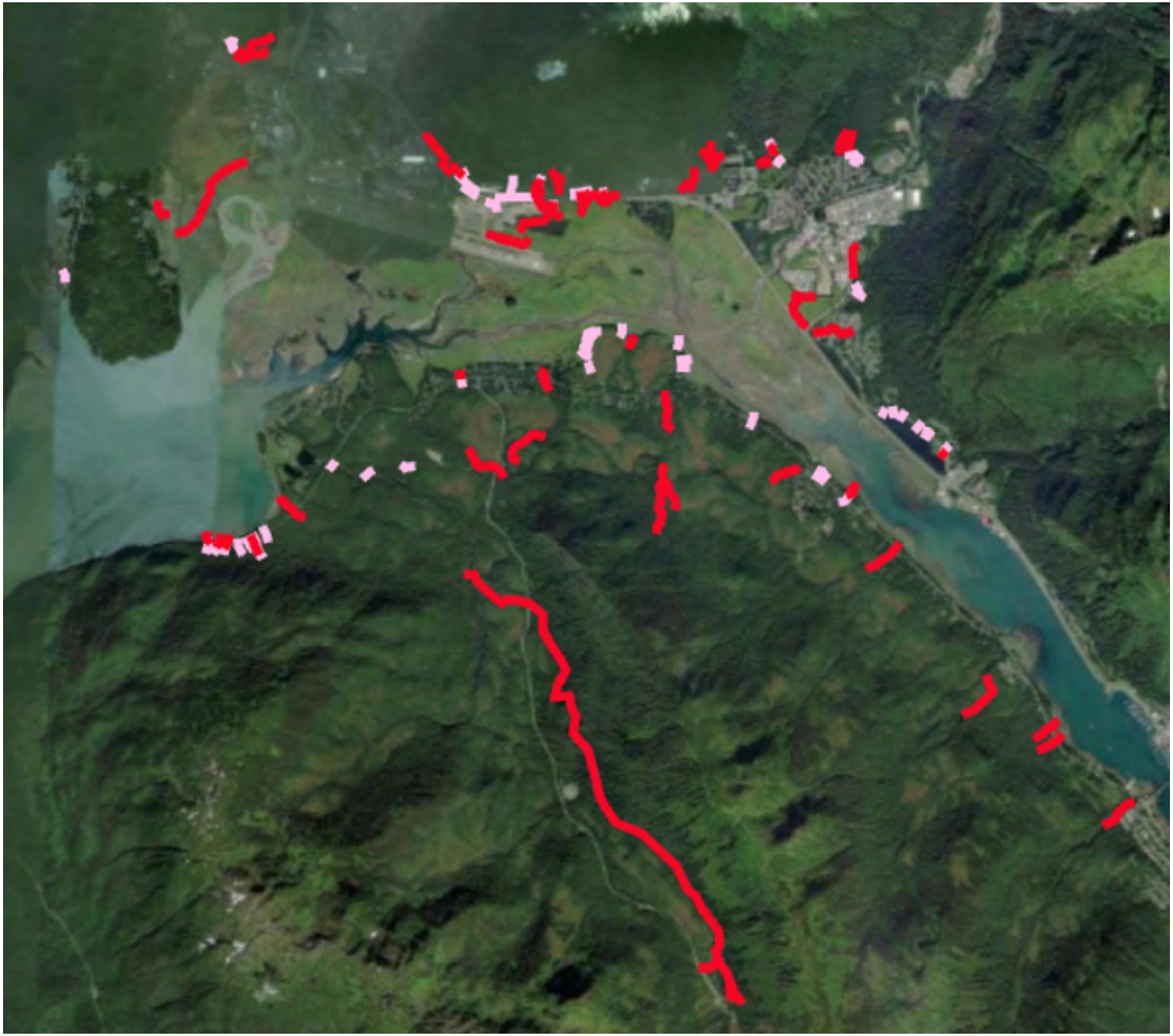
From: Lindgren, Jesse W (DFG) [redacted]>
Sent: Friday, January 26, 2024 12:46 PM
To: Storey, Benjamin M (DOT) [redacted]>; Lockwood, Gregory K (DOT) <[redacted]>
Cc: Casey, Flynn F (DFG) [redacted]>; Morgan McCammon <[redacted]>
Subject: Juneau Douglas Second Crossing Fish Use- Map Package

Hi Ben,

I have attached the ArcGIS map package to accompany the Juneau Douglas Second Crossing Fish Stream Surveys trip report from Flynn. This should keep all the symbology the same if you want to add it to any of your existing GIS maps. Thank you for the opportunity to conduct the field work and let me know if you have any questions.

Thanks,

Jesse Lindgren
ADF&G Habitat Biologist
[redacted]



From:	Lockwood, Gregory K (DOT)
To:	PUB-JDNorthCrossing
Subject:	[EXT] FW: ADFG Comments to DOT RE Juneau-North Douglas 2nd Crossing
Date:	Thursday, February 8, 2024 8:52:33 AM
Attachments:	image001.png ADFG_Letter-DOT_Juneau-Douglas-North_20240206.pdf

WARNING: *External Sender - use caution when clicking links and opening attachments.*

From: Rodman, Sue U (DFG) <[redacted]>
Sent: Wednesday, February 7, 2024 9:47 AM
To: Lockwood, Gregory K (DOT) <[redacted]>; Gentemann, Christy D (DOT) <[redacted]>; Dutchuk, Theresa (DOT sponsored) [redacted]; snoble <[redacted]>
Cc: Scott, Ryan (DFG) <[redacted]>; Mulligan, Benjamin J (DFG) <[redacted]>; Payton, Israel P (DFG) <[redacted]>; Kanouse, Kate M (DFG) <[redacted]>
Subject: ADFG Comments to DOT RE Juneau-North Douglas 2nd Crossing

Greg,

Please find attached ADF&G's letter from the Division of Wildlife Conservation regarding the 2nd Crossing Options for Juneau – North Douglas Island. Thank you for your cooperation in timing and incorporation of these comments into the PEL study. We look forward to continuing this process with DOT and Dowl.

Sue

Sue Rodman
Statewide Lands and Refuges Program Coordinator
Division of Wildlife Conservation
Alaska Department of Fish & Game
[redacted]

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Fish and Game

Wildlife Conservation
Statewide Programs

333 Raspberry Road
Anchorage, AK 99518-1565
Main: 907.267.2193
Fax: 907.267.2859

February 6, 2024

Greg Lockwood
Design Group Chief
State of Alaska DOT & PF
[redacted]

Dear Mr. Lockwood:

The Alaska Department of Fish and Game (ADF&G) manages 32 state game refuges, critical habitat areas, and wildlife sanctuaries with valuable habitat for fish and wildlife on 3.2 million acres. These legislatively designated special areas provide hunting, trapping, fishing, and wildlife viewing opportunities among other recreational activities for Alaskans and visitors alike. Conserving Alaskan lifestyles supports our heritage and providing these opportunities contributes to the state's economy.

The Mendenhall Wetlands State Game Refuge (refuge) was established by the Alaska Legislature in 1976 through AS 16.20.034 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreational opportunities on 3,764 acres. The refuge management plan finished in March 1990 was adopted by reference in 5 AAC 95.520. The plan's goals direct ADF&G to 1) maintain and enhance fish and wildlife populations and their habitat, and 2) maintain and enhance public use of fish, wildlife, and refuge lands.

The Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study was initiated in the spring of 2022 in a partnership between the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities (DOT&PF) to investigate and recommend crossings from north Douglas Island to Juneau. The Fall 2022 updated purpose for the new crossing study is outlined in DOWL's project planning documentation to 1) identify ways to improve the connection between Douglas Island and Juneau, 2) to identify ways to improve transportation for non-motorized users, and 3) reduce transportation related energy consumption. The corresponding updated need statement for improving connectivity to Douglas Island is 1) to address alternate access and transportation infrastructure resilience, and 2) to decrease traffic pressure on Douglas Island Bridge and its intersections.

The refuge management plan policy for a transportation corridor (pp. 9-10) is derived from AS 16.20.034 (i), which was also cited in ADF&G's comment letter to DOWL and DOT dated February 3, 2023:

> *The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of the refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel.*

Second crossing routes with the least impact on natural resources, especially waterfowl habitat, and recreational opportunities in the refuge align with the direction provided by Alaska Statutes and the Alaska Administrative Code. Because of the plentiful fish and wildlife this habitat attracts, the refuge serves as a popular site for public recreation and outdoor education in Juneau with 11 formal access points that support angling along the entire coastal edge, waterfowl hunting minutes from town, and extensive wildlife viewing. See public access map enclosed.

The first goal identified in the Mendenhall Wetlands State Game Refuge Management Plan is:

> Goal 1: Fish and Wildlife Populations and Their Habitat
>
> *Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental developments and actions affecting refuge resources.*

One of the guiding principles for creating the refuge was habitat protection, especially for waterfowl. While the refuge provides important habitat for birds year-round, the greatest numbers of birds use the refuge during the spring and fall migrations.

The Mendenhall Wetlands were designated as an Important Bird Area (IBA) of global significance by the National Audubon Society in 2007 based on more than 10,000 documented bird observations from which 256 species were recorded for this nomination. Decades of observations and research contribute to the knowledge base documenting the Mendenhall Wetlands as one of the key stopover sites in the region for migratory waterfowl and shorebirds. The blend of estuarine saltmarsh with upland coastal meadows found on the Mendenhall Wetlands is rare in Southeast Alaska, making the refuge an important steppingstone for birds migrating along the Pacific flyway. Audubon Alaska serves the GIS data for IBAs through DataBasin[1]. See the enclosure titled 'Important Bird Areas of Southeast Alaska Map.'

In addition to its importance for waterfowl, this unique blend of habitats also serves the specific needs of shorebirds. While expansive IBAs exist in Southeast Alaska, the refuge is one of only a few categorized in the Coastal Ecoregion (see map). There are few other areas along the migration route where shorebirds can access food at low tide; this nine-mile stretch of Gastineau Channel is otherwise surrounded by the familiar Southeast Alaska terrain of mountains extending directly to saltwater. Adjacent Coastal Ecoregion IBA stopovers for shorebirds are at Berner's Bay, 27 miles north, and at Frederick Sound, 99 miles south. The Stikine River Delta in Frederick Sound and the larger Copper River Delta, 390 miles to the northwest, are the nearest river deltas that support similar numbers of spring migrating shorebirds on the same scale as the Mendenhall Wetlands.

Avian hotspots within the refuge include Fritz Cove and the mouth of the Mendenhall River; these two areas are occupied during the entire year. Large rafts of sea ducks are commonly found here during spring migration. Also, ponds west of the airport are heavily used by migrating waterfowl.

The grasslands of Sunny Point and the Mendenhall Peninsula are popular feeding areas for migrating Canada and snow geese, especially in the spring. Pectoral sandpipers and Wilson's snipe, also grassland specialists, can be found here alone or in small flocks during migration as well. These upland grasslands are the main nesting areas for breeding waterfowl and songbirds using the refuge. This grassy habitat is one of the few places where short-eared owls, northern harriers, and very rarely a snowy owl are found during migrations. Peregrines and occasionally a gyrfalcon pass through hunting waterfowl.

[1] DataBasin. URL for Alaska's Important Bird Areas: https://databasin.org/datasets/f9e442345fb54ae28cf72f249d2c23a9/ (Accessed 1/3/2024)

From mid-summer to early fall, the mouth of Salmon Creek has large concentrations of gulls, eagles, crows, and ravens that feed on spawning salmon. Some of the most extensive tidal mudflats on the refuge are located from Salmon Creek to Lemon Creek; these areas are heavily used by gulls, shorebirds, eagles, and crows especially in the spring.

Another aspect of bird use is the daily movement patterns between roosting and feeding habitat. For example, the daily flight line for thousands of gulls transects Sunny Point between Fritz Cove and the landfill. With respect to AS 16.20.034 (h), bird flight patterns should be evaluated for each crossing alternative with consideration for increased bird mortalities from airport operations.

Refuge lands play an increasingly important role in conserving intertidal habitat for birds and other wildlife. Beyond the refuge boundary, more than 50% of the original Mendenhall Wetlands themselves have already been filled and developed.[2] The natural processes of siltation and isostatic rebound also slowly raise intertidal habitat above the tidal range, highlighting the value of intertidal wetlands within the refuge.

The upland boundary of the refuge is defined by a meander line at the level of mean high tide. Due to ongoing isostatic rebound, that boundary is migrating seaward allowing owners of the adjacent uplands to acquire ownership of refuge land to the current tide line. To date, over 91 acres have been claimed by multiple landowners through quiet title processes, reducing the habitat and ecosystem functions protected within refuge management and increasing the complexity of the boundary for public access. The amount of land under clouded title that could potentially be removed from refuge status is highly variable by location and subject to an adjudication process. While an exact predication of refuge acreage lost is not possible, at some locations the tideline (refuge boundary) has shifted over 700 feet seaward.[3,4]

The second goal of the management plan directs the department to maintain public use of the refuge.

> Goal 2: Public Use
>
> *Manage the refuge to maintain and enhance public use of fish, wildlife, and refuge lands.*

Juneau is surrounded by densely forested and mountainous public lands with plentiful opportunities for outdoor recreation. The Mendenhall Refuge holds a unique place in the community because it is one of few flat, open public lands accessible to residents. While the refuge was formed in part as a place for waterfowl hunting, common contemporary uses include dog walking, birding and nature watching, exercise, sport fishing, and horseback riding. The refuge management plan cites a 1988 study estimating 17,155 user days annually with hundreds and sometimes thousands of visitors daily.[5] From the same source, 4,563 user days were estimated for boating, fishing, and hunting. Since 1988, Juneau's population has increased from 26,000 to more than 31,000; user days may be higher now.[6]

Due to the mountainous terrain, waterfowl hunting opportunities in Southeast Alaska are limited. In Juneau, the refuge presents by far the best and most expansive road-accessible waterfowl hunting opportunity available to local residents and visitors. The department tracks hunters: waterfowl hunting has been exceptionally stable in recent years with about 350 to 400 people obtaining registration permits

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[2] National Marine Fisheries Service. 1982. Letter dated 14 October 1982 from Robert W. McVey, Director, Alaska Region, National Marine Fisheries Service, Juneau, to M. James Wolfe, Chief, Permit Processing Section, U.S. Army Corps of Engineers, Anchorage, Alaska.

[3] State of Alaska, Recorder's Office. 2024. Plats, deeds, and recorded court findings. https://dnr.alaska.gov/ssd/recoff/ (URL accessed 1/9/2024)

[4] Alaska Department of Natural Resources - Information Resource Management. 2024. Alaska DNR Land Disposal – Conveyed. Vector Digital Data. https://data-soa-dnr.opendata.arcgis.com/maps/SOA-DNR::land-disposal-all/about (URL accessed 1/9/2024)

[5] U.S. Fish and Wildlife Service. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska.

[6] U.S. Census Bureau via Federal Reserve Economic Data. https://fred.stlouisfed.org/series/AKJUNE0POP (Accessed 1/5/2024)

to hunt the refuge annually. Of those, 250 to 300 report having hunted. The waterfowl hunters spend between 1,500 and 2,000 hunter days in the refuge and harvest between 2,000 and 3,500 ducks and geese annually (Figure 1).

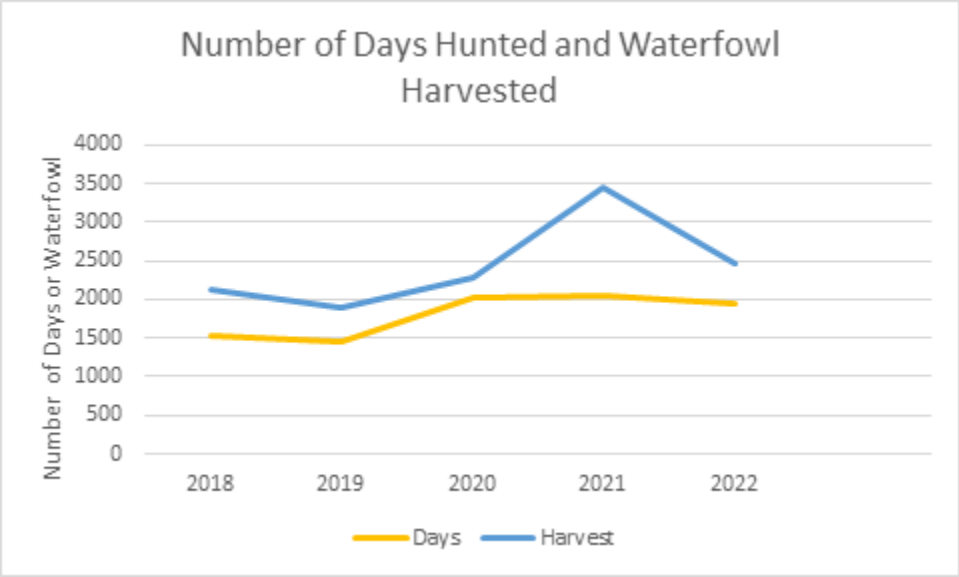


Figure 1. The number of hunter days spent on the Mendenhall Wetlands and the reported number of ducks and geese harvested for RY18 – RY22.

The refuge provides a unique opportunity for Juneau residents to hunt close to home, with 10% of these hunters being youth. A youth hunt occurs during the first two days of the season, offering a special opportunity open only for hunters under 17 (accompanied by a licensed adult over 21). Serving the conservation ethic by teaching youth to hunt is a capstone of state wildlife management and engages future stewards of the land and wildlife resources. Teaching the hunting tradition to the next generation supports funding for wildlife conservation and management through the Pittman-Robertson Act, which mandates an excise tax on guns and ammunition in support of state wildlife agencies, and state hunting license sales.

Juneau waterfowl hunters value the refuge because it offers a road-accessible and rare opportunity granted by an exception in the City and Borough of Juneau firearms ordinance that specifically allows shotgun use for waterfowl hunting within the refuge. If the Borough determines waterfowl hunting is incompatible with a second crossing on the refuge (e.g. for road safety), it is likely to alter or eliminate that exception. The refuge is surrounded by the airport, expanded in 2008, and residential properties, some of which have acquired ownership of accreted refuge lands. Consequently, the refuge and area open to waterfowl hunting has been shrinking over time. Crossing locations that impact waterfowl hunters may concentrate hunters elsewhere on the refuge, diminishing their hunting experience and harvest success. Given the paucity of other road-accessible waterfowl hunting opportunities, concentrating hunters in a smaller area could discourage people, especially youth hunters, from hunting and lead to a decline in the number of Juneau waterfowl hunters.

ADF&G monitors hunter use and access by area generally as follows, as captured in hunt reports and archived within the department's WinfoNet database:

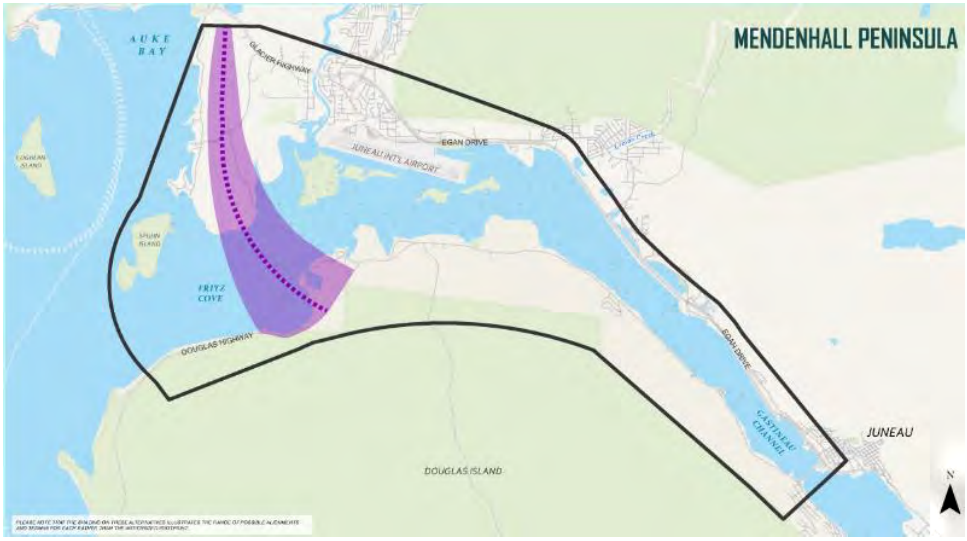
Sunny Point	36%
Airport Emergency Vehicle Access Road	27%
Nine-Mile area of North Douglas	17%
Mendenhall Peninsula	16%
Approximate total	96%

The rich biological resources in Gastineau Channel are important to many species of fish. Essentially all of the intertidal area in the refuge is used by shoreside anglers throughout the year for salmon, trout, and char. Multiple public access points and the opportunity to recreate in this natural area in the middle of Juneau encourages anglers of all generations, whether they are local residents or visitors. Similar to hunting, the Dingell-Johnson Act and the Wallop-Breaux Amendment, along with sport fishing license sales, provides funding for sport fisheries management and research along with improvements for recreational boating and angler access. The federal excise taxes and import duties placed on sport fishing equipment, recreational powerboats, and gasoline used in recreational boats are directed to state agencies. The Mendenhall Wetlands are also a key spawning and rearing area for juvenile salmonids, forage species including sand lance, and shellfish like Dungeness crab. Filling intertidal habitat and altering tidal flow will likely diminish habitat value for fish and shellfish.

Impacts to Refuge Resources by Crossing Option

ADF&G describes below how the fish, wildlife, habitat, and recreational opportunities in the refuge may be affected relative to each crossing alternative identified in the current PEL process. See the enclosure titled 'Mendenhall Wetlands State Game Refuge Crossing Alternatives – Public Access Map' for an illustration of the refuge relative to crossing alternatives. Maps below in the text are excerpted from the Juneau Douglas North Crossing storymap[7]; the black outline on maps within the text below shows the extent of the PEL study area, not the refuge boundary.

- Mendenhall Peninsula



[7] Dowl. https://gis.dowl.com/portal/apps/storymaps/stories/f7cb8dba48b84936a3e40a60cd246813 (Accessed 1/5/2024)

Much of this route is outside of the refuge, as illustrated in the enclosed map. However, it does pass through the west end of the refuge where the bridge would attach to Douglas Island near the North Douglas Boat Ramp. The bridge would cross a deep-water area in Fritz Cove where sport fishing anglers are targeting salmon and Dungeness crab. The Auke Bay and Fritz Cove area receives over 10,000 angler days per year based on Statewide Harvest Survey estimates collected through a mailout survey. This includes shore-based fishing along both sides of Gastineau Channel, marine anglers in personal boats, and charter operations who all benefit from views of the Mendenhall Glacier. The mouth of the Mendenhall River and Fritz Cove are seasonally important foraging areas for a variety of sea ducks and marine mammals including humpback whales, harbor seals, and large groups of Stellar's sea lions. Sand lance spawn at the mouth of the river and are an important food resource for bald eagles, gulls, and other birds.[8]

As noted above, the grasslands of the Mendenhall Peninsula offer important year-round habitat to waterfowl, passerines, and raptors. This is also where many sea ducks stage in the spring on their northward migration.

- East and West Sunny Point



A second crossing at Sunny Point, the center of the refuge, would have effects on both public use and fish and wildlife habitats. The sloughs and dredge islands near Sunny Point are among the most popular areas for waterfowl hunting; a crossing at this location could displace up to a third of refuge hunters. The three public access points at Sunny Point are heavily used for other forms of recreation: Sunny Point Drive, Switzer Creek, and Refuge Viewing Platform offer opportunities to enjoy the natural environment and expansive views. The user experience would be impacted beyond the footprint of the infrastructure. A second crossing in this area will impact the existing aesthetic for refuge users.

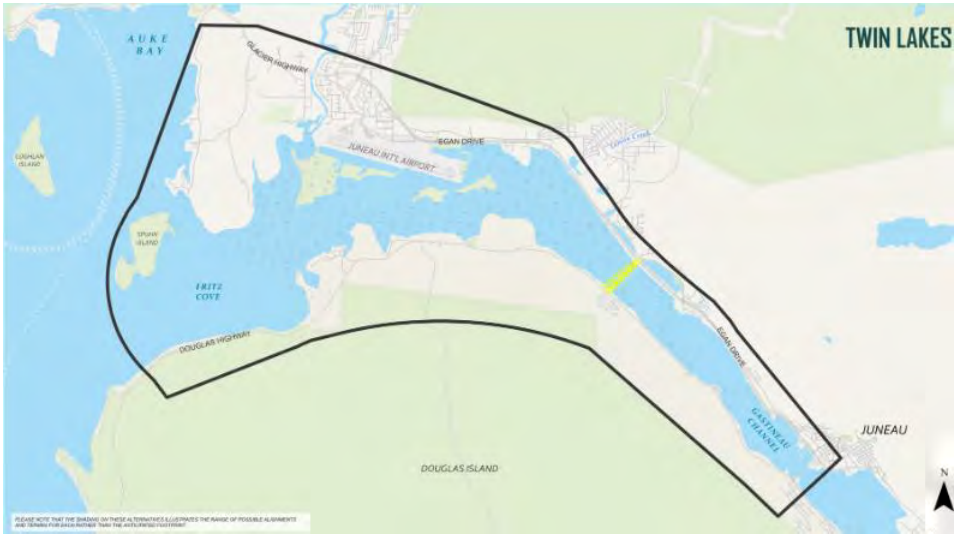
A crossing at Sunny Point would also affect how fish and wildlife use the area. The grassy uplands that make up much of the habitat through this route are specifically used for staging and feeding during migration by Wilson's Snipe, Pectoral Sandpipers, and geese. These grasslands provide the bulk of nesting habitat used during the summer months by songbirds and waterfowl. There is a heavily used flyway across this area that birds, especially gulls, use to travel between Fritz Cove and the landfill. Raising the

[8] Armstrong, R.H., Carstensen, R.L., Willson, M.F., and Hermans Osborn, M. 2009. The Mendenhall Wetlands, a globally recognized Important Bird Area. Nature Alaska Images, Juneau, Alaska.

road level for a channel crossing could elevate the flight path of these birds to conflict with approaching aircraft. Relative to the other routes, the eastern Sunny Point route has more small anadromous streams containing spawning and rearing salmon habitat.[9] A filled causeway here is likely to change tidal flow and surface hydrology with impacts to tidally influenced habitat.

- Vanderbilt and Twin Lakes





The Vanderbilt and Twin Lakes routes cross more tidal mudflats on the refuge than other routes, and Vanderbilt Creek is an anadromous stream. Food resources on the mudflats are most important in the spring for shorebirds but are also used by gulls, eagles, ducks, and geese year-round. Benthic invertebrates are an important food source here for waterfowl and shorebirds to support migration and the subsequent energy requirements for successful nesting. This area is especially popular for staging ducks and geese during hunting season when pressure is increased at Sunny Point.

[9] Flynn Casey, Habitat Biologist, ADF&G, Juneau, Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299 memorandum, 10 January 2024

The Twin Lakes area, particularly the Douglas Island shoreline, is popular among anglers for fishing in the fall when coho salmon are in the channel.

- Salmon Creek



The Salmon Creek alternative is the only off-refuge route remaining yet under consideration and likely has the least impact on refuge resources. It is, however, still important to consider effects on angler access, wildlife habitat, and recreational uses at this site. This area is used by salmon anglers throughout the late summer and fall; however, the salmon are returning to a hatchery and would likely use this area regardless of the presence of a bridge. For this alternative, we recommend that DOT consult with Macaulay Salmon Hatchery (Douglas Island Pink and Chum Inc.) to ensure the continued integrity of hatchery operations. Sand bars in this area are used as haulouts by hundreds of harbor seals when there are salmon in the channel. The proximity of this route to Salmon Creek will impact birds in the fall, especially gulls and eagles feeding on salmon here. The extensive mudflats at Salmon Creek are used by migrating shorebirds with considerable numbers in the spring and also by waterfowl throughout the year.

Conclusion

ADF&G is not making recommendations on potential bridge locations. This letter is a summary of possible impacts that proposed crossing alternatives are likely to have on refuge resources and the people who enjoy them.

Consideration of second crossing options in the refuge should analyze how crossing infrastructure will impact the following resources and natural processes:

- Bird and fish habitat through
  - changes to tidal flow,
  - surface hydrology,
  - sedimentation patterns,
- Subsequent changes to availability of invertebrates and vegetation for feeding and habitat for
  - resting and breeding birds,
  - migrating birds,

- Displacement and disturbance to fish and wildlife from the crossing structures themselves as well as changed vehicle traffic patterns, and
- Public access and use of refuge resources:
  - waterfowl hunting,
  - angling,
  - nonconsumptive uses, and
  - how crossing options would change public use patterns, and how far from each crossing those effects would extend.

Public use of the refuge should also be analyzed for each crossing alternative to provide insight into the direct loss of access to hunting and fishing opportunities as well as how effects on habitat may diminish harvestable populations or shift harvest opportunities from traditionally used areas.

Thank you for recognizing the importance of conserving ADF&G State Game Refuges for fish, wildlife, and their habitats for the benefit of Alaskans. Please contact me at sue.rodman@alaska.gov or (907) 267-2274 if you would like to discuss further.

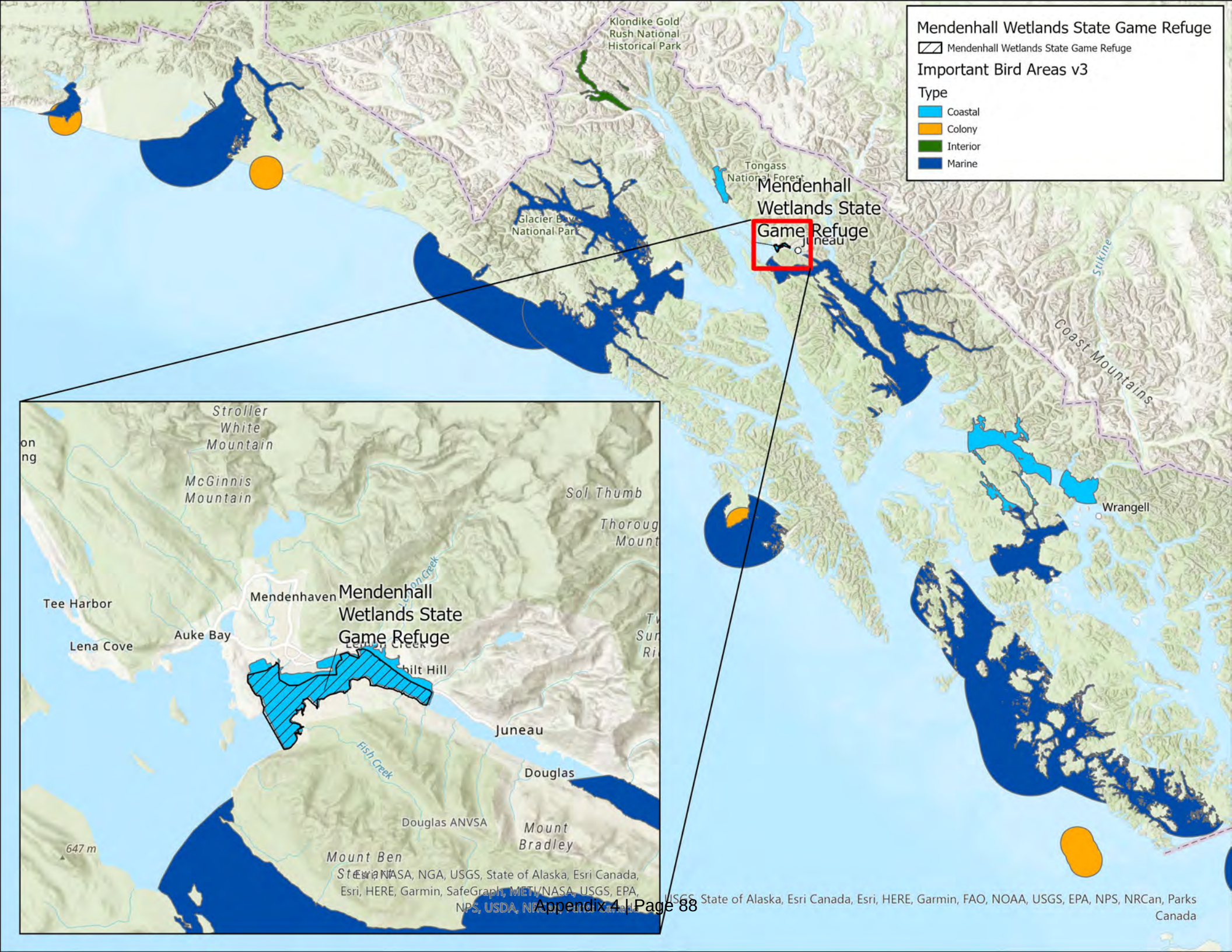
Sincerely,

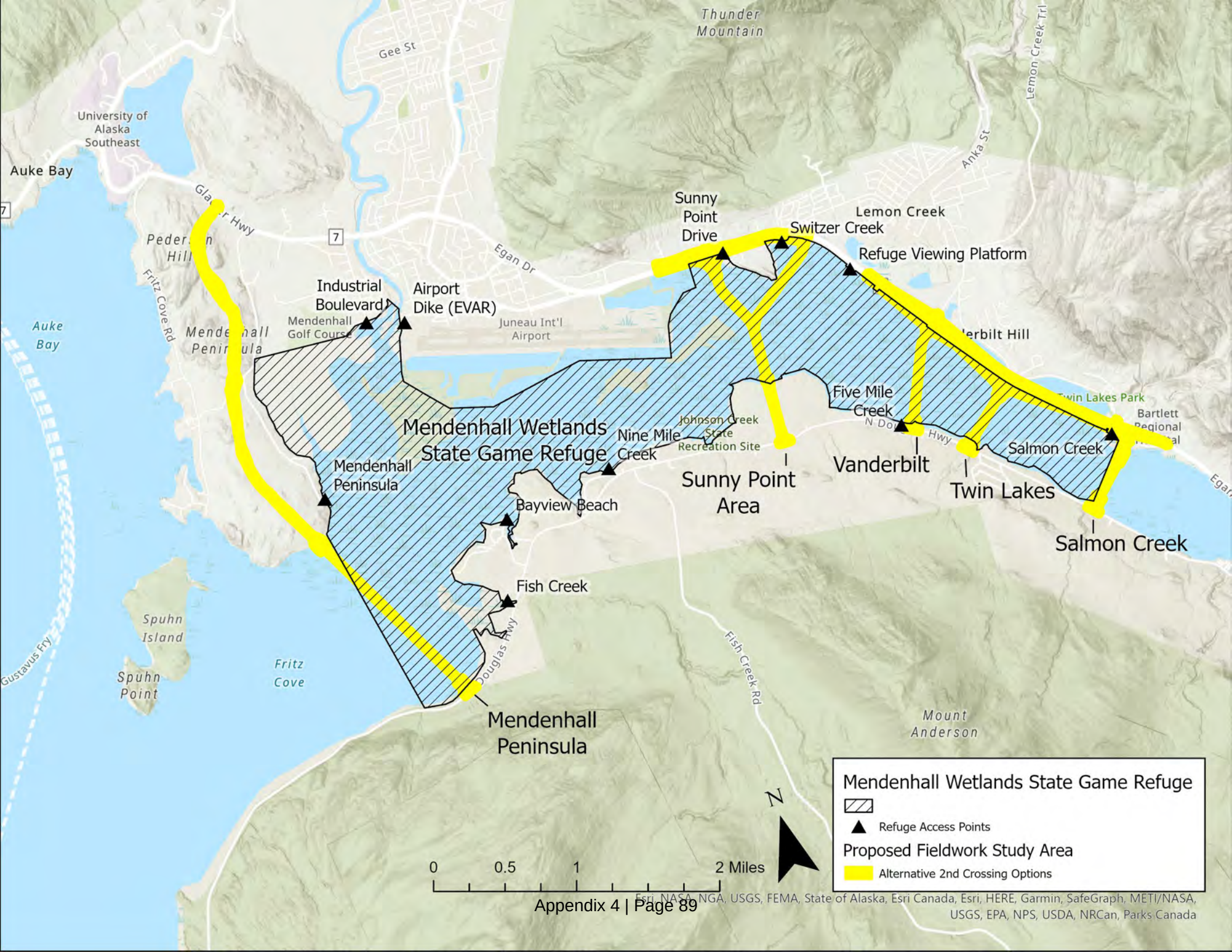


Susanne Rodman
Statewide Lands & Refuges Coordinator

cc: Ben Mulligan, ADF&G, Anchorage
Ryan Scott, ADF&G, Juneau
Israel Payton, ADF&G, Anchorage
Kate Kanouse, ADF&G, Douglas

Enclosures:
Important Bird Areas of Southeast Alaska Map
Mendenhall Wetlands State Game Refuge Crossing Alternatives and Public Access Map


Mendenhall Wetlands State Game Refuge
Mendenhall Wetlands State Game Refuge
Important Bird Areas v3
Type
Coastal
Colony
Interior
Marine
Klondike Gold Rush National Historical Park
Tongass National Forest
Glacier Bay National Park
Mendenhall Wetlands State Game Refuge
Juneau
Coast Mountains
Wrangell
Stroller White Mountain
McGinnis Mountain
Sol Thumb
Mendenhaven
Tee Harbor
Auke Bay
Lena Cove
Mendenhall Wetlands State Game Refuge
Juneau
Douglas
Douglas ANVSA
Mount Bradley
Mount Ben Stevens
647 m
Esri, NASA, NGA, USGS, State of Alaska, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCan, Parks Canada
USGS, State of Alaska, Esri Canada, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, NRCan, Parks Canada


Thunder Mountain
Gee St
Lemon Creek Trl
University of Alaska Southeast
Auke Bay
Anka St
Glacier Hwy
7
Egan Dr
Sunny Point Drive
Lemon Creek
Switzer Creek
Refuge Viewing Platform
Industrial Boulevard
Airport Dike (EVAR)
Mendenhall Golf Course
Juneau Int'l Airport
Fritz Cove Rd
Auke Bay
Mendenhall Peninsula
Vanderbilt Hill
Five Mile Creek
Twin Lakes Park
Bartlett Regional
Mendenhall Wetlands State Game Refuge
Nine Mile Creek
Johnson Creek State Recreation Site
Hwy
Salmon Creek
Mendenhall Peninsula
Bayview Beach
Sunny Point Area
Vanderbilt
Twin Lakes
Salmon Creek
Fish Creek
Spuhn Island
Fritz Cove
Spuhn Point
Gustavus Fry
Douglas Hwy
Fish Creek Rd
Mount Anderson
Mendenhall Peninsula
N
0
0.5
1
2 Miles
Mendenhall Wetlands State Game Refuge
Refuge Access Points
Proposed Fieldwork Study Area
Alternative 2nd Crossing Options
Esri, NASA, NGA, USGS, FEMA, State of Alaska, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCan, Parks Canada

From:	Morgan McCammon
To:	Kanouse, Kate M (DFG); Lockwood, Gregory K (DOT)
Cc:	Mulligan, Benjamin J (DFG); Ott, Alvin G (DFG); DFG - HAB Douglas Staff; Teske, Daniel J (DFG); Forbes, Scott N (DFG); Koch, Carl H (DFG); Churchwell, Roy T (DFG); Rodman, Sue U (DFG); Gentemann, Christy D (DOT); Theresa Dutchuk; Steven Noble; [redacted]; Stevens, Andrew; [redacted]; [redacted] Welch, Robert K (DPS); [redacted] Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Theresa Dutchuk
Subject:	RE: [EXT] ADF&G Comments on the Juneau-Douglas Crossing DRAFT Level 2 PEL
Date:	Friday, April 12, 2024 7:15:47 AM
Attachments:	4-11-2024 ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening.pdf

Good morning, Kate,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Kanouse, Kate M (DFG) <[redacted]>
Sent: Thursday, April 11, 2024 5:33 PM
To: Lockwood, Gregory K (DOT) <[redacted]>
Cc: Mulligan, Benjamin J (DFG) [redacted]>; Ott, Alvin G (DFG) <[redacted]>; DFG - HAB Douglas Staff <[redacted]>; Teske, Daniel J (DFG) <[redacted]v>; Forbes, Scott N (DFG) [redacted]; Koch, Carl H (DFG) [redacted]; Churchwell, Roy T (DFG) [redacted]; Rodman, Sue U (DFG) [redacted]; Gentemann, Christy D (DOT) [redacted]; Theresa Dutchuk <[redacted]>; Steven Noble <[redacted]>; [redacted]; Stevens, Andrew <[redacted]>; [redacted]; [redacted]; Welch, Robert K (DPS) <[redacted]>; [redacted]; Morgan McCammon <[redacted]>
Subject: [EXT] ADF&G Comments on the Juneau-Douglas Crossing DRAFT Level 2 PEL

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Greg,

Attached are ADF&G's comments on the draft Level 2 PEL documents provided for the Juneau-Douglas Crossing project review.

Kate Kanouse
Southeast Regional Supervisor
ADF&G Habitat Section - Region 1
[redacted]

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

OFFICE OF THE COMMISSIONER
Headquarters Office

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.6136
Fax: 907.465.2332

TO: Greg Lockwood, Engineer/Architect
Dept. of Transportation and Public Facilities

DATE: April 11, 2024

FILE: Gastineau Channel Bridge: DOT Second Crossing

SUBJECT: Juneau-Douglas Second Crossing
PEL Draft Level 2 Screening
Project No. SFHWY00299

FROM: Benjamin Mulligan
Deputy Commissioner

PHONE NO: (907) 267-2190

Alaska Department of Fish and Game (ADF&G) has reviewed the Draft Level 2 Scoring Table 2-29-24 and Draft Level 2 Impact Table 3-1-24 for the Juneau-Douglas second crossing Preliminary Environmental Linkages (PEL) study. The proposed Level 2 scoring process ranks crossing alternatives based on the sum of scores assigned to each criterion, which appears incomplete and lacks definitions to support assigned scores. Our comments below are on the scoring system and sectioned into the overall scoring system, environmental scoring, Section 4(f)/(6) resources, and general comments per the screening considerations.

Overall Scoring System

The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.

The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between 0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.

We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.

Environmental Scoring

For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).

Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for 'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.

Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.

Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.

Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.

The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km.[1]

Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.[2]

Section 4(f)/6(f) Resources

The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting,

[1] Goodship, N.M. and R.W. Furness. (MacArthur Green). 2002. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

[2] Flynn Casey, Habitat Biologist, to Kate Kanouse, Southeast Regional Supervisor, Alaska Department of Fish and Game, Habitat Section. Memo: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299; dated January 10, 2024.

fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'.

By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects:

1. Public access to and within the refuge;
2. Opportunities for hunting waterfowl and fishing within the refuge;
3. Opportunities to recreate in the refuge; and
4. Opportunities for viewing, photography, education, and study of fish and wildlife.

In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.

General Comments

Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.

Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.

We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations.

Thank you for the opportunity to comment on the draft documents. Please contact Habitat Biologist Jesse Lindgren at jesse.lindgren@alaska.gov or (907) 465-1635 if you have any questions.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Carl Koch, ADF&G WC, Douglas
Roy Churchwell, ADF&G WC, Douglas
Sue Rodman, ADF&G WC, Anchorage
Christy Gentemann, DOT&PF, Juneau
Theresa Dutchuk, DOWL, Anchorage
Morgan McCammon, DOWL, Anchorage
Steve Noble, DOWL, Anchorage
Mike Salyer, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau
Margaret Custer, MWSGR-CAC, Juneau

3. Alisha Falberg

January 29, 2023

Dear Juneau Douglas North Crossing PEL Study Team,

I am a resident of Douglas and I strongly oppose any new crossing between Juneau and Douglas. For the reasons set forth below, I do not believe this crossing is necessary, nor do the benefits outweigh the costs. It will have negative environmental and social impacts, and a "no action" alternative has not been adequately analyzed.

First, the rationales for the study – congestion, safety, and the potential for development – do not exist or are not necessary. There is not a congestion problem on the current bridge. I have lived on Douglas for five years and I regularly commute across the bridge for work, recreation, errands, etc. In those five years, the only time I have been backed up and/or made to stop on the bridge was when the bridge was being re-paved. While some data indicates congestion during peak AM commuting hours, thoughtful planners and leaders are learning lessons from COVID that the expanded use of flexible start times and telework options are a better means of alleviating traffic congestion than large, billion-dollar infrastructure investments. According to Alaska DOT's website, the average annual daily traffic numbers for the bridge have declined since 2019. Further, Juneau's population is not growing; rather, it is projected by the Alaska State Demographer to shrink by over 10% through 2050, further demonstrating large, billion-dollar infrastructure investments are not necessary. This project will likely increase community sprawl and create a services cost burden for all community members. The burden outweighs any purported need.

There is also no safety concern. The current bridge has served just fine for Douglas's current population and, if it is properly maintained, should continue to serve that need. If there is a serious concern about the structural integrity of the current bridge, money should more appropriately be spent maintaining the current bridge. Further, should there be an emergency where the bridge cannot be used, helicopters can be utilized, as they are in other emergency and rescue situations in places where road vehicles cannot reach.

Second, the study's stated purposes and needs are not met. One of the stated purposes is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. A new crossing would not achieve this; rather, it would do the opposite. A life cycle analysis of emissions from the construction of any new infrastructure development must be considered in relation to any supposed emission reductions credited to the new infrastructure. The study also states that the new crossing would "increase potential for residential, commercial, industrial, and port development on Douglas Island" and, as highlighted in the Needs Statement, add "additional traffic capacity to support the future development of affordable housing and economic development opportunities." Again, this would not only increase traffic, cars, and use of motorized vehicles, but also increase energy consumption; a direct counter to one of the stated purposes. Further, current non-motorized users, like cyclists, use North Douglas because there is less traffic and less development out there. If there is really a concern for non-motorized users, why seek to increase traffic on North Douglas with a new crossing? This proposal fails to consider current non-motorized users of North Douglas, in direct

contradiction to one of its stated purposes. Funds should more appropriately be spent improving bike lanes and pedestrian walkways for non-motorized users.

One part of the need statement states: “Transportation improvements should avoid, minimize, and mitigate impacts to the environment and to residential areas.” A new crossing would not meet this need, as any of the proposed alternatives would negatively impact the environment in several ways: wetland destruction, habitat destruction, harassment of marine mammals such as whales, seals, and sea lions, ecosystem change, negative impacts to fish (particularly salmon) and crabs, negative impacts to birds, and would create more construction/development on North Douglas which would mean deforestation and further environmental degradation of an area used largely for recreation.

The Gastineau Channel north of the current bridge is currently completely unobstructed and used by non-motorized vessels (such as kayakers) and small motorized vessels from the North Douglas boat launch. Thus, it provides almost pristine and undisturbed habitat for animals such as humpback whales, orcas, sea lions, and seals. It also provides recreational opportunities, like fishing and crabbing. Disturbing this current habitat would negatively impact these creatures, not only harassing them, but degrading their habitat, which in turn impacts locals and tourists alike who enjoy viewing the animals in nature and fishing/crabbing.

More specifically, the proposed crossings would defeat the purpose of Southeast Alaska Land Trust and the U.S. Fish and Wildlife Service’s long-standing partnership program (the Coastal Program), which supports conservation of valuable habitat and recreation opportunities for both wildlife and the public. This Program is one of the Service’s most effective resources for restoring and protecting fish and wildlife habitat on public and privately-owned lands. In Alaska, the Coastal Program focuses on the conservation and restoration of aquatic habitat and habitat connectivity for the benefit of federal trust species with a focus on Pacific salmon. Salmon is an important species for locals, Alaska Natives, and the tourism economy of Juneau. With salmon runs in serious decline in other rivers in Alaska, it is of utmost importance that we protect the salmon here. Most of the proposed crossings are on or connected to Southeast Alaska Land Trust land and would negatively impact the protected coastal lands and wetlands, as well as salmon rivers and streams.

Additionally, the Mendenhall Wetlands are important beyond measure. Much of the wetland habitat on which many species depend on has already been lost, therefore these existing wetlands are critical for shorebirds and other wildlife as these wetlands are one of the few places that provide the necessary food and habitat that these animals need. The wetlands are also a treasured recreation area for Juneau residents and visitors. Centrally located in the capital city, the Wetlands are a popular place for hiking, birding, hunting, and taking in the views. Wetlands have been designated as a globally recognized Important Bird Area by the National Audubon Society. The Refuge was created to preserve the highly productive estuarine wetlands and freshwater marshes, supporting large numbers of both migrating and resident bird populations.

Another part of the need statement asserts that “transportation improvements should maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.” Any new bridge crossing would utterly fail to meet this purported need. A new bridge crossing would be an eyesore on a

currently unobstructed view of the Channel, near and distant islands, mountain ranges, and the pure unobstructed beauty both locals and visitors enjoy out North Douglas, from Mendenhall Wetlands, and from on top of the many mountains which hikers enjoy. Further, any bridge crossing would obstruct views of whale watching and other wildlife. Juneau is known for its scenic beauty and a new bridge crossing would ruin that.

A new crossing would also negatively impact the current recreational use. As stated, many local cyclists ride out North Douglas, as it is one of the few places in Juneau where there is relatively little traffic and safer for recreational riders. The local cycling club has weekly group rides out North Douglas and back in the summer. There are also cycling and running races, like the Douglas Half/Full Marathon. Walkers, hikers, and runners also frequently use this paved road, not to mention the several hikes and walks and views the North Douglas road provides access to. Kayakers and small motor-boaters also use the North Douglas boat launch for recreation. Further, a new tourist attraction – Segway tours – uses North Douglas to show-off Juneau's beauty, nature, and wildlife on a road that currently has little traffic and no obstructed views. A new crossing would both increase traffic and obstruct these views, which negatively impacts current recreational users, locals and visitors alike.

The current alternatives are not well thought-out. All the alternatives currently presented are either too costly, too destructive, located in an avalanche zone or too close to the current bridge to make any difference whatsoever. Another question to ask is whether the alternatives over/under the wetlands have considered glacial rebound. Juneau's wetlands are rebounding at a range rate from 0.33 inches per year to upwards of 0.50 inches per year. With this in mind, it seems like a crossing, whether it be bridge or tunnel, would have to undergo constant monitoring to maintain structural integrity at the least and continuous construction, upkeep, and repairs to account for the changing landscape at the most.

I also saw no analysis of a "no action alternative." Such an alternative should be considered and it should analyze the impacts of and funds needed for simple upkeep of the current bridge. This analysis would most likely show a "no action alternative" would be cheaper, would ensure the current crossing is adequately maintained for safety purposes, and have little to no environmental impacts; thus meeting many of the stated purposes and needs of this study.

A further question that this study has so far failed to address is how any new infrastructure will be maintained. The State and CBJ transportation cannot adequately maintain the existing infrastructure. Several examples of this come to mind. Fish Creek Road going up to Eaglecrest is in terrible condition. With the new gondola and a purported interest in increasing summer and winter tourism up there, traffic will increase on this terrible road. Money should be spent maintaining this road and making sure it is safe instead of a crossing that is not needed, is destructive, and is wasteful. Another example is Thane Road. It is full of potholes and is not well lit. Funds should arguably be spent fixing and maintaining that road, as it is the only way for people who live out Thane to get to/from the rest of Juneau, instead of focusing on a crossing that is not needed.

Thank you for your consideration.
Sincerely,

Alisha Falberg
Douglas, AK.

4. Back Country Hunters and Anglers

From:	Morgan McCammon
To:	Mary Glaves; PUB-JDNorthCrossing
Subject:	RE: [EXT] Alaska BHA comments on JD North Crossing
Date:	Monday, April 8, 2024 10:22:25 AM
Attachments:	image001.png

Good morning, Mary,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study.

Kind regards,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Mary Glaves [redacted]>
Sent: Sunday, April 7, 2024 7:36 PM
To: PUB-JDNorthCrossing <jdnorthcrossing@dowl.com>
Subject: [EXT] Alaska BHA comments on JD North Crossing

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good evening,

Please find the Alaska Chapter of BHA's comments on the Juneau Douglas North Crossing PEL study.

Thank you for the opportunity to comment.

All the best,

Mry Glaves

Mary Glaves | Alaska Chapter Coordinator

Backcountry Hunters & Anglers

The Voice for Our Wild Public Lands, Waters, and Wildlife

[redacted]

BACKCOUNTRY HUNTERS & ANGLERS
ALASKA

April 7, 2024

Department of Transportation & Public Facilities
PO Box 112500
3132 Channel Dr.
Juneau, AK 99801-2500

RE: Juneau Douglas North Crossing

To Whom It May Concern:

The Alaska Chapter of Backcountry Hunters and Anglers thanks you for the opportunity to comment on the Juneau Douglas North Crossing PEL Study. Alaska BHA is committed to standing up for wild places and critical habitats that give hunters and anglers an opportunity to participate in the outdoor heritage of hunting and fishing in a natural setting. The Mendenhall State Game Refuge is comprised of critically important fish and wildlife habitat as well as offers unprecedented access for local Juneau hunters and anglers for waterfowl hunting as well as salmon and trout fishing. We oppose any crossing option that cuts through the Mendenhall Refuge and urge you to examine the analysis of this proposed project.

Alaska BHA has the following concerns with the PEL studies conducted:

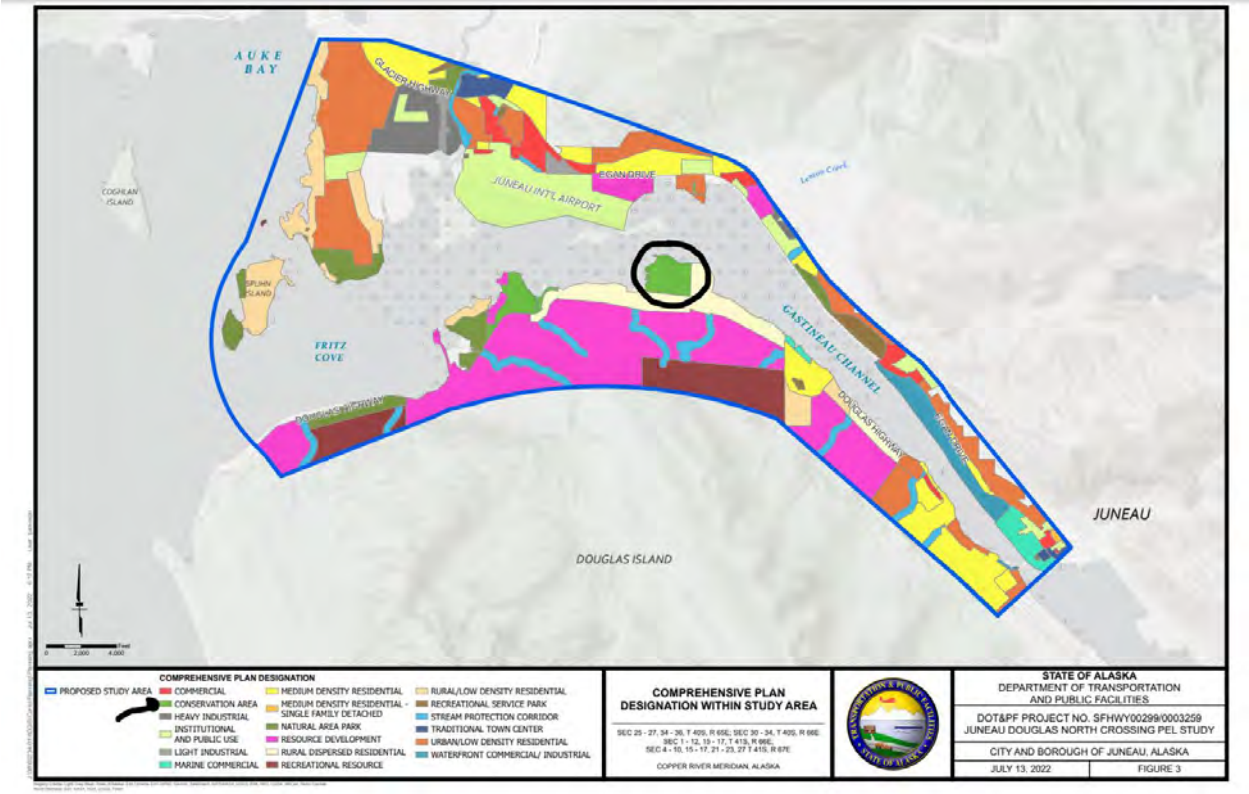
Upland Habitat Survey Report:

- The Upland Habitat Survey Report was collected just once in the fall when bird migration is protracted over a longer southbound migration period.
    - Repeated seasonal surveys are critical during fall migration as multiple species and age groups (females, males, and juveniles) migrate during slightly different times.
    - Survey was held over 10 days only, and it is unknown if that was peak migration time. There is no data indicating one way or the other.
    - Holding surveys in the spring, and also in summer when birds are nesting in the wetlands and surrounding areas, is essential.
    - Conducting shorebird surveys during low tide without spotting scopes can reduce the observers' detection rate.
        - Observers training in accurate rapid census techniques was not outlined

Land Use Memo 9.1.4

- "Mendenhall Wetlands State Game Refuge Management Plan (1990) The Mendenhall Wetlands State Game Refuge Management Plan provides guidance to the Alaska Department of Fish and Game (ADF&G), the Alaska Department of Natural Resources (DNR), and other agencies. The Mendenhall Wetlands State Game Refuge (MWSGR) is popular for waterfowl hunting, sport fishing, personal use crabbing, boating, wildlife viewing and photography, wetland studies, and hiking. The management plan states regarding a transportation corridor, that "the City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off refuge; 2) that the use of refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel. New private, exclusive use transportation corridor will not be authorized within the refuge." The ADF&G implemented the plan and any habitat altering activity will require a Special Areas Permit obtained from the Habitat Division Regional Office in Douglas (and applicable permits from other agencies)."
    - **The 1990 Mendenhall Wetlands State Game Refuge Management Plan cited on page 7 of the Land Use Memo states that four criteria must be met prior to acquiring land for a public transportation corridor. *It clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible.*** This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries.
    - It can also be contended that the public need is not significant for a second crossing.

- Figure 3 shows bridge take off point as a "conservation area" for the Sunny Point location. If an area is already identified as a conservation area, how can we put a structure through it?



Wildlife Fish Memo 9.1.14

Wildlife and Fish Resources

- Draft Environmental Impact Statement (DEIS): Project Development Summary Report, Juneau Second Crossing (HDR Alaska, Inc., May 2005)
    - This DEIS of 20-year-old data is consistently referenced in the study without any documentation that data was verified.
    - Utilizing 20-year-old data in an area undergoing glacial rebound and tidal shift is unacceptable.
- The use of ebird is listed as GIS data and an online resource that was utilized. However, ebird data can provide a lot of false temporal data for bird sightings if trips are not logged in real time and there is no correction for backlogging observations. Without careful analysis to ensure data being collected in real time, you will end up with a lot of false data that will invalidate your study.
- "**Assumptions Information in the May 2005** DEIS Project Development Summary Report, listing and describing the natural histories of species that use habitats in the study area, **is still accurate**. … **Summary The May 2005 DEIS Project Development Summary Report provides a thorough accounting of wildlife and fish resources in**

the study area. The report includes a large amount of general information that is still valid. The following subsections identify updates and refinements of the information presented in the May 2005 DEIS Project Development Summary Report."

- These assumptions are not accurate as ADF&G just added 13 new anadromous streams on the wetlands to the Anadromous Waters Catalog (AWC) in 2023. This is a classic example of why utilizing 20-year-old data and operating on assumptions is not a scientifically sound methodology. These new streams can be viewed at the link below.
  - https://experience.arcgis.com/experience/1a4eb07b42ff4ebb8c71ba45adaedf0c/

Origin Destination Data Memo

- Table 1 shows the Origin Destination Percentage Likelihood and Confidence Interval

Table 1: Origin Destination Percentage Likelihood and Confidence Interval

		Destination Zone				
		Point Lena / Auke Bay / Mendenhall Valley	Sunny Point / Lemon Creek / Twin Lakes	Downtown Juneau	North Douglas Island	South Douglas Island
Origin Zone	Point Lena / Auke Bay / Mendenhall Valley				3.3% (1.3 to 5.3%)	13.2% (11.4 to 15.1%)
	Sunny Point / Lemon Creek / Twin Lakes				4.5% (2.6 to 6.5%)	13.4% (11.5 to 15.2%)
	Downtown Juneau				3.8% (1.9 to 5.8%)	8.8% (6.9 to 10.6%)
	North Douglas Island	3.7% (1.8 to 5.7%)	4.1% (2.2 to 6.1%)	4.1% (2.2 to 6.1%)	3.9% (2.0 to 5.9%)	
	South Douglas Island	11.6% (9.7 to 13.5%)	10.5% (8.6 to 12.4%)	9.0% (7.1 to 10.9%)		5.9% (4.0 to 7.9%)

Incorporating the trip estimates for Eaglecrest Ski Area, in wintertime about 30% of the bridge traffic heads to North Douglas and 70% to South Douglas, while in the summertime, about 25% of the bridge traffic heads to North Douglas and 75% to South Douglas.

The percentage likelihood and confidence intervals from Table 1 will be used to develop the volume forecasts for each proposed bridge location. Whether or not a proposed bridge will be used will be determined by comparing travel time using the proposed bridge with travel time using the existing bridge. These percentages will inform the amount of the forecasted bridge volume that would switch to the proposed bridge if it were built, for each combination of origin and destinations.

Table 1 presents the average and likely range of the percentage of all trips between each origin and destination pair. By using the 90% confidence interval for the origin destination it can be seen that the largest volume of vehicles at 13.4% are traveling from Sunny Point/Lemon Creek/Twin Lakes to South Douglas.

- The significant portion of traffic is being shown transiting to South Douglas according to this study. So, the need justification for a North Douglas crossing is not shown here. If there is a need for a *new* crossing, the location that would be supported by this traffic analysis is the southern-most option.

Environmental Setting Document

2.2.5.2 Existing Conditions

2.2.5.2.1 Aquatic Species

- "A May 2005 Project Development Summary Report (PDSR) (HDR Alaska, Inc., 2005) developed to document baseline conditions for a Juneau Second Channel Crossing includes descriptions of species and life history stages that use aquatic habitats in the study area. The report states that anadromous species spawn, rear, and overwinter in the Mendenhall Flats, Mendenhall River, Fritz Cove, Gastineau Channel, and associated streams, especially the lower reaches of moderate to large streams; that information is still valid."
    - This information, while some may still be valid, in an area with glacial rebound, this cannot be assumed about all data. The Southeast Alaska Land Trust has updated LiDAR data from 2013 that is shown on the below link, depicting changes in the Channel and associated streams. This data is not referenced.
        - https://storymaps.arcgis.com/stories/662519e4406946faa6e655dd0329f2a7

In addition to the aforementioned technical concerns regarding the PEL studies and frequently referenced 2005 study data, which is now 20 years old, the Mendenhall Wetlands are a designated global Important Bird Area (IBA) by Audubon. They are also the only stopover for birds between Yakutat and the Stikine River Delta, which is nearly a 600-mile flight. That fact also creates a scenario for optimal waterfowl hunting access on the Mendenhall State Game Refuge.

Alaska BHA urges AKDOT and City and Borough of Juneau (CBJ) to conduct a sound scientific analysis of this proposed project that could cause irreparable damage to critical habitats. If construction of the second crossing is deemed necessary by the community of Juneau and thorough analysis is conducted, Alaska BHA encourages decision makers to select the Salmon Creek location which would be the least impactful option to habitat and hunting access.

Respectfully,

Mary Glaves
Alaska Chapter Coordinator
On Behalf of Alaska BHA

5. Barb Mecum

From:	Morgan McCammon
To:	Friends of Fritz Cove; PUB-JDNorthCrossing
Subject:	RE: [EXT] Fwd: ATTENTION: Ms. Koester, Members of the CBJ Assembly Public Works & Facilities Committee -
Date:	Friday, March 3, 2023 10:16:01 AM
Attachments:	image001.png image002.png

Good morning Barb and the Friends of Fritz Cove,

Thank you for sharing these comments and an update on the petition with the study team. We will include them in our comment records.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Friends of Fritz Cove <[redacted]>
Sent: Friday, March 3, 2023 9:44 AM
To: Morgan McCammon [redacted]>; PUB-JDNorthCrossing [redacted]>
Cc: Friends of Fritz Cove [redacted]
Subject: [EXT] Fwd: ATTENTION: Ms. Koester, Members of the CBJ Assembly Public Works & Facilities Committee -

Some people who received this message don't often get email from [redacted] Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good Morning,
Yesterday evening, Thursday, March 2, the CBJ Public Works Committee held a meeting to take public comments regarding the Second Crossing. Steve Noble presented an update on the status of the PEL Study which was very helpful. Prior to the meeting, the Friends of Fritz Cove sent the above email update for the record since the CBJ indicated it would take comments in lieu of in-person comments, but when I inquired of Ms. Koester and Mr. Bryson how and whether our emailed comments would be read into the record that evening I was told no, they would not be. Many of us were able to be on Zoom for the meeting, but were unable to attend in person.

So I am sending this along to you as an update to the record. We continue to grow in numbers and are now up to 98 signers on the electronic petition, and another 6 on a paper petition for folks who preferred that method, so a total of 104 friends and neighbors who are in opposition to a second crossing at the Mendenhall Peninsula to the vicinity of the North Douglas Boat Launch.

Please let me know you have received this email, and that ii has been added to the record. Also, I am wondering if this email/petition will be shared with the members of the Stakeholder and Technical

Committees meeting this Monday, March 6?

Thank you,
Barb Mecum
Friends of Fritz Cove

---------- Forwarded message ---------
From: **Friends of Fritz Cove** [redacted]
Date: Tue, Feb 28, 2023 at 1:46 PM
Subject: ATTENTION: Ms. Koester, Members of the CBJ Assembly Public Works & Facilities Committee -
To: [redacted]
Cc: Friends of Fritz Cove [redacted], Barb Mecum [redacted]

Dear Ms. Koester, CBJ Assembly Members, and CBJ Public Works & Facilities Committee Members:

The Friends of Fritz Cove appreciate the opportunity to submit written comments in lieu of testifying in person at the Public Works and & Facilities meeting this Thursday, March 2, as it takes public comment on the Second Crossing.

The Friends of Fritz Cove submits our petition with 98 signatures to date as our official position regarding the Second Crossing. We are in opposition to a bridge crossing from the Mendenhall Peninsula to the vicinity of the North Douglas boat launch.

Please add this to the public record for the project, and let us know with a reply here that you have received this email.
Thank you,
Friends of Fritz Cove

Friends of Fritz Cove



98 have signed. Let's get to 100!

At 100 signatures, this petition is more likely to be **featured in recommendations!**

Friends of Fritz Cove

Share on Facebook

Send an email to friends

Send a message via WhatsApp

Tweet to your followers

Copy link

Friends of Fritz Cove Fritz Cove started this petition

Friends of Fritz Cove Petition

Attention: Juneau Assembly & Planning Commission, Alaska Department of Transportation & Public Facilities, and DOWL.

We, the undersigned, oppose a bridge across Fritz Cove between the end of Mendenhall Peninsula and the vicinity of the North Douglas boat launch ramp.

- It would not reduce congestion during peak periods on the Douglas Island Bridge.

- It would be the longest and most expensive (four times more according to estimates) second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula.

- It would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if Douglas Island Bridge was closed. Douglas residents' work and shopping travel times would be extraordinarily long if Douglas Island Bridge were closed.

- It would have a significant negative impact on Fritz Cove whales, sea lions, and other marine life.

- Hopes for the development of the west side of Douglas Island are doubtful because Juneau's population isn't increasing and many government offices are moving to the Anchorage area.

Report a policy violation

6. Bonnie Brae Neighborhood Association

Juneau Douglas North Crossing PEL Study Purpose & Need Statement

Introduction

The City and Borough of Juneau (CBJ) has partnered with the State of Alaska Department of Transportation and Public Facilities (DOT&PF) to study a possible transportation corridor to connect mainland Juneau with the north end or east end of Douglas Island. Since the 1980s, a connection has been studied but not progressed beyond identification and recommendation of preliminary alternative alignments.

DOT&PF chose the Planning and Environmental Linkages (PEL) process to identify and evaluate a purpose and need for connecting Juneau with Douglas Island. The PEL process will provide opportunities for public input and involvement. The analyses conducted may be incorporated into a future National Environmental Policy Act (NEPA) process.

The study area considers potential crossing locations between Douglas Island and mainland Juneau in the channel area north of the existing Douglas Island Bridge.

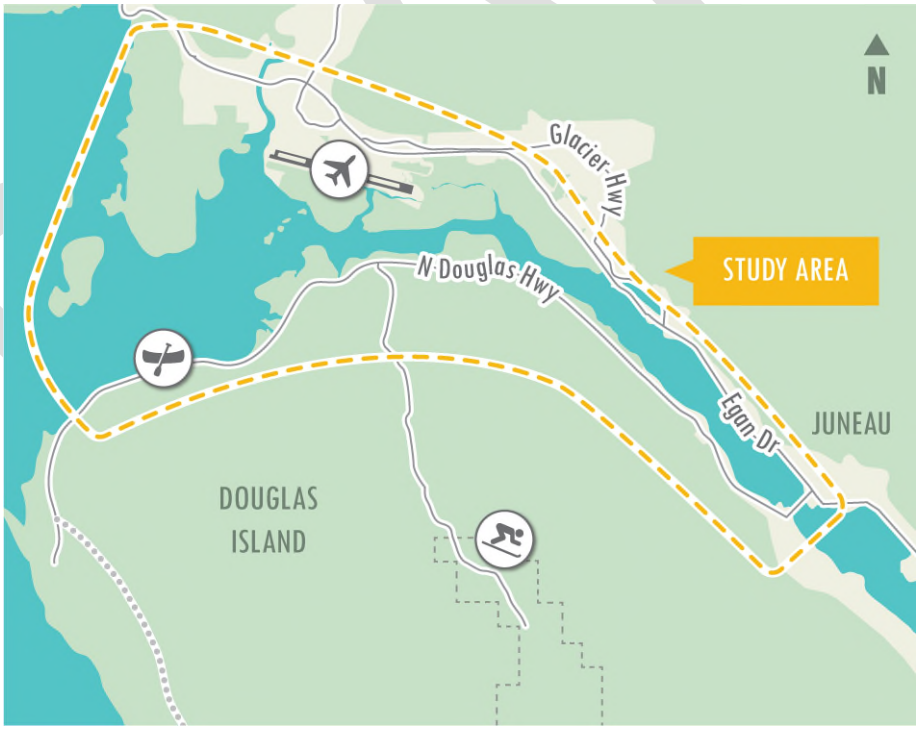


Figure 1: Study Area

This document presents a draft purpose and need for the Juneau Douglas North Crossing PEL Study. Contributions by project participants, including the Technical Advisory and Stakeholder Advisory Committees and the public, helped identify the study purpose and need themes, and problems to be solved. The purpose and need statement leverages the themes discussed and baseline social, environmental, and economic data into a clear statement of what the study is intended to do, and why the study of a second crossing may or may not be / is or is not needed. After the PEL study is complete, one or more projects may advance for more environmental review and engineering design through the NEPA process.

What is a Purpose and Need Statement?

One of the first steps in the PEL process is to develop a purpose and need statement, which can serve as a vision for future project(s) and supply the basis for developing criteria for comparing and evaluating alternatives, developing a range of alternatives, and selecting a recommended alternative(s). The purpose and need statement must clearly and concisely describe the transportation problem(s) and other needs without offering a specific solution. Instead, it supplies information to help identify solutions to identified problem(s). The "purpose" states why DOT&PF is proposing the study and outlines the positive outcomes they hope to achieve by proposing solutions through the PEL process. The "need" describes the key problem(s) the PEL process is addressing and explains the underlying causes of those problems.

The project's Purpose and Need Statement was developed using guidance provided in the following:

- Alaska Environmental Procedures Manual (Section 5.3.1)
- Alaska Highway Preconstruction Manual (Section 430.3)
- Federal Highway Administration (FHWA) Technical Advisory T6640.8A
- American Association of State Highway and Transportation Officials (AASHTO) Practitioner's Handbook – Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects

When transitioning to a NEPA review process, the purpose and need statement must also meet the requirements of 23 CFR 1502.13 for Environmental Impact Statements. These requirements include consultation of appropriate federal and state resource agencies, tribes, and the public during the development of the purpose and need statement, so it can be used to inform the development of alternatives and the PEL study recommendations. The purpose and need statement is dynamic and may evolve as new information is obtained during the project development process, including ongoing input from project stakeholders and the public.

DRAFT

Public and Agency Involvement

Public and agency involvement is critical to developing a successful purpose and need statement. This includes involving the PEL study's technical and stakeholder advisory committees, as well as the public, tribes, businesses, services, non-profit, community and neighborhood organizations. Public and agency involvement for the purpose and need, as well as other aspects of the study, follows relevant planning regulations[1] and includes:

- Establishing continuous public and agency involvement opportunities throughout the process that provide timely information about issues and decision-making processes
- Providing opportunities for public review and comment at key decision-making points
- Holding advisory and public meetings that give reasonable access to information and adequate time for review and comment
- Considering and responding to comments and input received
- Periodically reviewing the effectiveness of procedures and strategies to ensure a full and open process
- Considering the opinions, actions, and relevant information from other parties
- Cooperating with stakeholders and involved parties to work together to achieve a common goal
- Supplying timely public notices

Virtual Technical Advisory and Stakeholder Advisory Committee meetings and a Virtual Public Open House meeting introduced the PEL process, shared background information and gave committee members and the public opportunities to comment on existing conditions. All meetings sought input on issues and concerns, as well as emerging themes to be captured in the study's purpose and need statement. The themes state the key problems experienced by residents and observations on issues within the study area. The emerging themes are:

- Economic Impact
- Emergency Response
- Travel Time and Congestion
- Active Transportation Facilities and Recreation
- Developable Land
- Redundancy
- Population
- Utilities
- Environmental Impacts
- Neighborhood Impacts

[1] 23 CFR 450.210 and 450.316; DOT&PF 2021 (Section 303 Public and Agency Involvement Requirements)

DRAFT

Purpose

The purpose of the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study is to identify a potential north crossing corridor that could reduce dependency on the existing North Douglas Highway, improve network connectivity, reduce travel time and emissions, provide redundant access, improve emergency response time, and provide infrastructure consistent with City and Borough of Juneau's planning framework.

Need

A successful solution should address the following needs:

- Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island.
- Provide redundancy and reduce travel times for public safety and emergency response in the event of traffic disruption on the North Douglas Highway, Douglas Island Bridge, or Egan Drive.
- Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency response.

The identified alternative(s) should also meet these additional goals:

- Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles.
- Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development.
- Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment.
- Improve access and connection to recreational, cultural, and subsistence resources.
- Enhance and protect public health and safety.
- Satisfy applicable federal, state, and local plans, policies, and regulations.
- Consideration of impacts to neighborhoods and residents from each of the proposed alternatives.

DRAFT

7. Bruce Baker

DATE	ITEMS	PAGE
8/12/2022	Letter	117
8/14/2022	Letter	118
1/14/2023	Letter	119

Bruce Baker
[redacted]

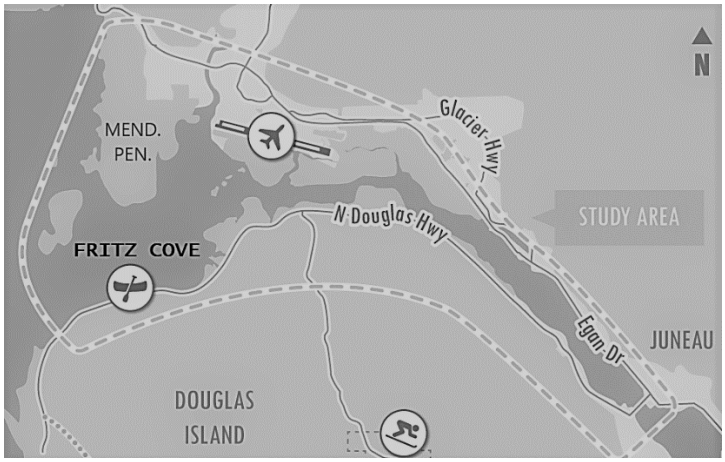
Marie Heidemann, DOT&PF Project Manager
Alaska Department of Transportation & Public Facilities
[redacted]

AND

Irene Gallion, CBJ Senior Planner and Members of the Juneau Assembly and Planning Commission
[redacted]

Subject: Juneau Douglas North Crossing PEL Study

I oppose a bridge across Fritz Cove between the end of the Mendenhall Peninsula and the vicinity of the North Douglas boat ramp and request that it be removed from consideration from the Second Crossing Study Process.



● It would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and new road down the Mendenhall Peninsula.

● It would result in long travel distances for medical and other first responders, plus residents' work, shopping, and other activities.

● It would have a significant adverse impact on Fritz Cove whales, sea lions, and other marine life.

● Hopes for development of the west side of Douglas Island are wishful thinking because Juneau's population is not increasing, and many government offices have been moving to the Anchorage area.

Please include these comments in the public record for this project.

Sincerely,

/s/ Bruce Baker

Bruce Baker
[redacted]

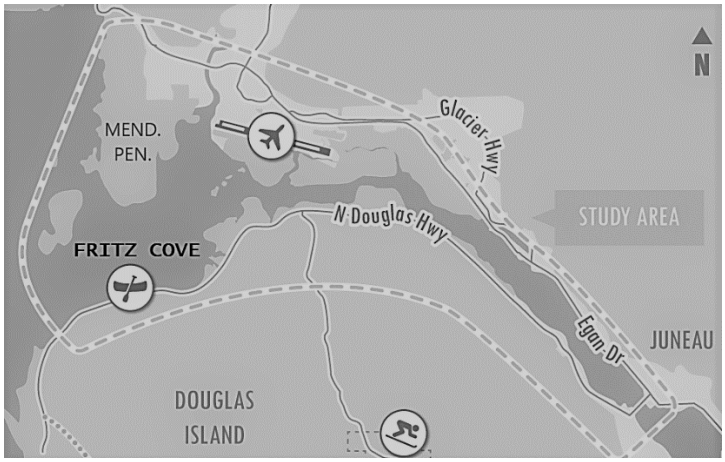
Marie Heidemann, DOT&PF Project Manager
Alaska Department of Transportation & Public Facilities
[redacted]

AND

Irene Gallion, CBJ Senior Planner and Members of the Juneau Assembly and Planning Commission
City & Borough of Juneau
[redacted]

Subject: Juneau Douglas North Crossing PEL Study

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● Hopes for development of the west side of Douglas Island are wishful thinking because Juneau's population is not increasing, and many government offices have been moving to the Anchorage area.

Please include these comments in the public record for this project.

Sincerely,

/s/ *Bruce Baker*

Bruce Baker
[redacted]

TO: jdnorthcrossing@dowl.com, the designated representative for:

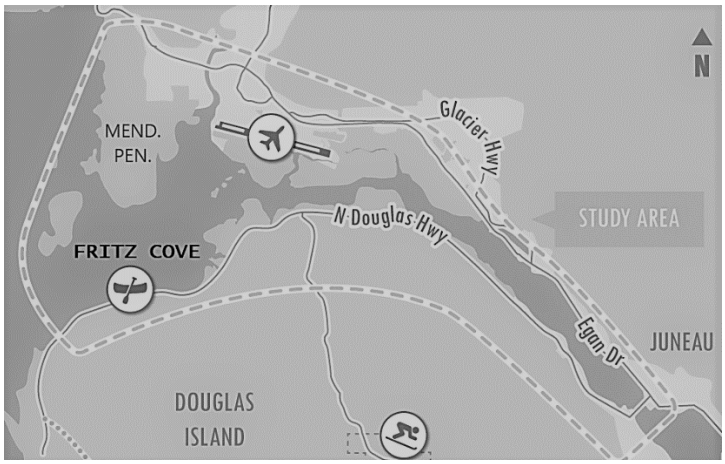
Alaska Department of Transportation & Public Facilities
[redacted]

AND

City & Borough of Juneau
[redacted]

Subject: Juneau Douglas North Crossing PEL Study

I oppose your proposal for a "Mendenhall Peninsula" bridge which would cross Fritz Cove, the area which includes the North Douglas boat ramp, the CBJ's Fish Creek Natural Area Park, and Bayview Subdivision.



● A "Mendenhall Peninsula" option would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and an essentially new road down the Mendenhall Peninsula.

● It would result in the longest possible travel distances for medical and other first responders, plus most residents' travel to work, shopping, and other activities, in the event that the existing Juneau-Douglas bridge becomes even temporarily unusable for any reason.

● It would have a significant adverse impact on Fritz Cove whales, sea lions, Dungeness crab, anadromous fish utilizing the Fish Creek estuary (coho, pink, chum, and hatchery king salmon; cutthroat trout; and Dolly Varden char), and numerous other fish and invertebrate species which make up the food chain.

● On the east side of both Fritz Cove and your identified "Mendenhall Peninsula" crossing corridor is Bayview Subdivision which consists of more than 60 year-round residential homes, the destruction or disruption of which would be an enormous community impact, the economic cost of which would be a

huge financial burden for the CBJ, considering the cost of settling numerous likely lawsuits and making very large buyout payments to displaced homeowners.

● Hopes for development of the west side of Douglas Island are wishful thinking because Juneau's population is not increasing and many government offices have been moving to the Anchorage area. Moreover, no one has come forth with a favorable benefit-cost analysis that takes into account all of the social, economic, and environmental costs of providing highway access directly from the Mendenhall Peninsula across Fritz Cove to North Douglas to facilitate west side development.

In Summary: Of all the identified second crossing alternatives, your "Mendenhall Peninsula" option is the most far out, both literally and figuratively. Your time and energy would be better spent selecting a more practical crossing alternative southeast of the Juneau Airport.

Sincerely,

/s/ Bruce Baker

8. Comments to City and Borough of Juneau Assembly Shared as a Curtesy

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From: Bob Varness
To: Borough Assembly
Subject: 2nd Channel Crossing Comment
Date: Thursday, May 18, 2023 3:29:17 PM

I am in favor of the proposed Vanderbilt Hill crossing. I believe it would be the safest and least expensive route with minimal environmental disruption to the wetlands.

Best

Robert Varness
[redacted]

From: Linda Baker
To: Borough Assembly; Beth Weldon
Subject: 2nd Crossing
Date: Saturday, February 25, 2023 11:28:44 AM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello,

One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle school. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Salmon Creek provides a better alternative plus it would cut many miles off the trip to Eaglecrest and North Douglas and would be one of the least damaging to the environment.

Sincerely,

Linda Baker

From: Tom Boutin
To: Borough Assembly
Subject: 2nd Douglas Crossing
Date: Thursday, March 2, 2023 12:28:27 PM

Good afternoon,

I do not oppose construction of a so-called 2nd crossing to Douglas Island so long as CBJ taxpayers are not asked for funding and so long as the Mendenhall Refuge is not bisected by the construction. The last time voters were asked about the crossing it was rejected by about a 2:1 margin. I was a member of a group that opposed the measure at that time, a group of about 200 people. The group had foresters, the spouse of a sitting legislator, a CBJ Assembly member, many ADF&G employees and retired ADF&G employees, environmentalists and fiscal conservatives. I had never been a member of such a group, and the political diversity within that group was at least a little remarkable.

Avoiding Refuge bisection seems to mean that the crossing must be either near the hospital or it must come off the Mendenhall Peninsula. I suppose that a tunnel would also meet that criterion but I cannot imagine that a tunnel would be feasible. Crossing by the hospital seems to be the least expensive of the three choices.

I know that state economists project a continued and significant population decline for Juneau. I hope that CBJ Assembly priorities are selected with that in mind unless CBJ government has information that successfully defeats state population projections.

Thank you for your time. Thank you for your hard work for Juneau!

Tomas Boutin
[redacted]

THOMAS C. WILLIAMS
[redacted]

February 21, 2023

The Honorable Pete Buttigieg
Secretary
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary Buttigieg,

I urge you to approve federal discretionary funding under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program for the Juneau-Douglas North Crossing (JDNC) as requested by the City and Borough of Juneau, Alaska (CBJ) and the Alaska Department of Transportation (ADOT). The requested 2023 RAISE award is a critical part of this project, providing funds to support the final design of the project and produce bid ready construction documents.

The JDNC will create a second highway connection between Juneau and Douglas Island. Currently there is only a single bridge providing access to Douglas Island. The historical town of Douglas is a very important community within the CBJ. Douglas Island is an area abundant with desirable residential communities and outdoor attractions such as hiking trails and ski areas. However, access to Douglas Island and its many residents is limited with only one highway connection to the mainland.

The JDNC will have a much greater positive effective on the short-term and long-term health and quality of life for Juneau and Douglas residents than any other currently attainable development project. In addition to many other benefits, the JDNC will:

1. ensure adequate emergency services, such as fire, police and medical services, remain available to Douglas residents in the event the existing bridge is closed;
2. relieve the significant congestion associated with the existing bridge;
3. allow ADOT to close the existing bridge for significant repairs and maintenance without impeding the flow of traffic between Juneau and Douglas;
4. increase housing development opportunities on Douglas Island;
5. increase recreational opportunities on Douglas Island;
6. increase employment opportunities throughout the CBJ;
7. improve tourism opportunities;
8. improve the CBJ's ability to attract new businesses and US government agencies to the Borough; and
9. potentially relieve traffic congestion in downtown Juneau.

Please help ensure the CBJ's economic future, stability, and sustainability by approving the requested RAISE grant for the Juneau-Douglas North Crossing.

Thank you very much.

Sincerely,

Thomas C. Williams

[redacted]

From:	Friends of Fritz Cove
To:	Katie Koester; Borough Assembly
Cc:	Friends of Fritz Cove; Barb Mecum
Subject:	ATTENTION: Ms. Koester, Members of the CBJ Assembly Public Works & Facilities Committee -
Date:	Tuesday, February 28, 2023 1:48:02 PM
Attachments:	Screenshot 2023-02-28 at 11.17.55 AM.png Screenshot 2023-02-28 at 11.18.18 AM.png

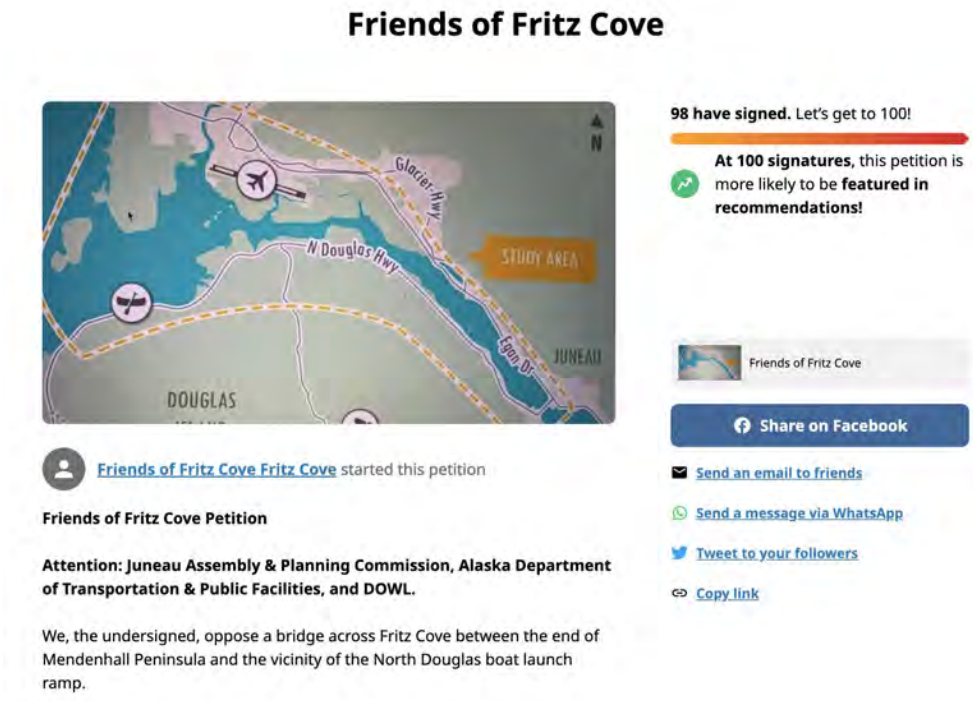
EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Dear Ms. Koester, CBJ Assembly Members, and CBJ Public Works & Facilities Committee Members:

The Friends of Fritz Cove appreciate the opportunity to submit written comments in lieu of testifying in person at the Public Works and & Facilities meeting this Thursday, March 2, as it takes public comment on the Second Crossing.

The Friends of Fritz Cove submits our petition with 98 signatures to date as our official position regarding the Second Crossing. We are in opposition to a bridge crossing from the Mendenhall Peninsula to the vicinity of the North Douglas boat launch.

Please add this to the public record for the project, and let us know with a reply here that you have received this email.
Thank you,
Friends of Fritz Cove



• It would not reduce congestion during peak periods on the Douglas Island Bridge.

• It would be the longest and most expensive (four times more according to estimates) second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula.

• It would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if Douglas Island Bridge was closed. Douglas residents' work and shopping travel times would be extraordinarily long if Douglas Island Bridge were closed.

• It would have a significant negative impact on Fritz Cove whales, sea lions, and other marine life.

• Hopes for the development of the west side of Douglas Island are doubtful because Juneau's population isn't increasing and many government offices are moving to the Anchorage area.

Report a policy violation

Port of Juneau

155 S. Seward Street • Juneau, AK 99801
(907) 586-0292 Phone • (907) 586-0295 Fax

From: Carl Uchytil, Port Director
To: City & Borough of Juneau Assembly
Via: Docks & Harbors Board
Date: February 28th, 2023
Re: Docks & Harbors Board Comments – Juneau North Douglas Crossing Project

---

1. The Docks & Harbor Board is supportive of the Juneau North Douglas Cross Project as it provides greater public access to Docks & Harbors facilities. The Board is agnostic to a preferred location and defers to the US Coast Guard regarding navigation impedances resulting from a particular bridge design.

#

From: christopher Schleck
To: Borough Assembly
Subject: Bridge Opinion
Date: Monday, May 22, 2023 3:47:22 PM

Good afternoon,

Thank you for taking public opinions on the proposed bridge. I do not think another bridge would be worth it. I live on Douglas and have never experienced congestion. The only locations that make some sense to me are the northernmost crossings, but even then, the return on such a large investment seems minimal. The southern 2 or 3 options seem way to close to the current bridge, with not nearly enough commute reduction to make it worthwhile.

I appreciate the opportunity to be heard. Thank you for reading this.

-Chris Schleck
[redacted]

From: Craig Dahl
To: Borough Assembly
Subject: CBJ Priorities
Date: Tuesday, January 17, 2023 9:21:34 AM
Attachments: image001.png
image002.png
image003.png
image004.png
CBJ Priorities Ltr to Assembly.pdf

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Craig E. Dahl
Government Affairis
[redacted]
www.juneauchamber.com

Greater Juneau Chamber of Commerce

9301 Glacier Hwy, Suite 110 • Juneau AK 99801 • (907)463-3488

Board Members

John Blasco
President
Anchorage Distillery LLC

Wayne Jensen
Past President
Jensen Yorba Wall Inc

Laura McDonnell
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Jodi Garza
Secretary
Alaska Seaplanes

Max Mertz
Treasurer
Mertz CPA & Advisor

Heather Nelson
Hecla Greens Creek Mine

McHugh Pierre
Goldbelt Inc.

Connie Hulbert
AEL&P (Retired)

Kara Hollatz
Airlift Northwest

Ray Thibodeau
Alaska Marine Lines

Travis McCain
AK Litho

Benjamin Brown
Attorney at Law

Roger Calloway
Reliable Transfer

Eric Forst
Red Dog Saloon

January 17, 2023 *Delivered via email*

Mayor Beth Weldon & Members of the Assembly

Re: Assembly Priorities

The Juneau Chamber appreciates the work that all of you put in to guide Alaska's Capital City through an ever-changing multitude of challenges.

The chamber board took the time to review the draft FY24 list of Assembly priorities as presented at a recent finance meeting. We do not take issue with any of the items listed, but we are greatly concerned that you have moved the "*Juneau North Douglas Crossing"* previously #2 down to #8. We strongly urge the Assembly to reorganize the list to reflect the top three items as:

#1 Pederson Hill Development
#2 Juneau North Douglas Crossing
#3 CBJ Radio System Replacement

The chamber has no comment on the order of the remaining 19 items.

We believe that it is critical to the ongoing efforts to secure federal funding that it remains clear that this is a top priority for the City of Juneau. While we have been successful in securing state funding for the PEL study, and now $7 million in federal funding for the subsequent stage of environmental and design, we are a long way from completion. We ask the Assembly not to downgrade the importance of this project. This is a moment in time when this project may have access to the significant amount of funding required to construct the North Douglas Crossing. Your endorsement of its priority will have an impact on various funding applications as well as the public's view of this project.

Respectfully,

John Blasco
President

Maggie McMillan
Executive Director

9301 Glacier Hwy, Suite 110 • Juneau, AK 99801 • (907) 463-3488• Fax (907) 463-3489
E-mail:info@juneauchamber.com Web site: www.juneauchamber.com

From:	Judith Mitchell
To:	JDNorthCrossing@dowl.com
Cc:	Managers Office; Borough Assembly
Subject:	Clarification
Date:	Thursday, May 11, 2023 9:38:18 AM

Can you please list the **specific** residential lots that will be impacted by each of the proposals or point me to where I can find that information?

Also, can you describe what City rules or regulations apply when impacting or eliminating a residence? Is this "eminent domain"? For instance, will the owners be compensated at assessed value or some other pre-determined amount? What if the residence is not destroyed, but the value of the property is decreased due to road noise, etc.?

I am hoping this will also be part of the information presented at the meeting on May 18th.

Not sure if the City Manager/lawyer/Assembly needs to answer the above questions, so copying them as well.

Thank you,

Judith and Rodney Mitchell

From: Laird Jones
To: Borough Assembly
Subject: Comment: Public Worksession on Juneau North Douglas Crossing Project
Date: Thursday, March 2, 2023 3:20:07 PM

I cannot make the meeting tonight so here is my comment.

There needs to be a second crossing which I fully support. I agree with the safety and ease of access and having an alternative route available to Douglas.

The only request is to keep the airport access trail accessible for public walking.

--- Laird A. Jones, Juneau resident

From:	Jeff Hoover
To:	Borough Assembly
Subject:	Comments on 2nd crossing bridge
Date:	Monday, May 22, 2023 7:58:12 AM

Hello

I'm a Juneau resident of 30 years and I wanted to submit comments on the 2nd crossing bridge. I recently read that the Salmon creek crossing was the preferred option for most of the Juneau residents testifying at the recent CBJ meeting. Although the location may make sense for access to Bartlett hospital, I don't think it's a good alternative for a 2nd bridge. In my opinion, the proposed Salmon Creek location is too close (about 3.3 miles) to the current Juneau bridge and doesn't really had much value to the city or the residents. If CBJ wants to build an expensive 2nd bridge to Douglas Island then it should be closer to the valley where most of the population lives.

I've read that some of the 2nd crossing options have concerns about wetlands and that should be a consideration but not the only consideration. In my opinion, the two Sunny Point options are a good compromise for a 2nd crossing:
-Still close to Bartlett hospital for emergencies out North Douglas highway
-Very close to the Airport for quick access to our primary transportation method out of Juneau
-Close to the Valley where it gives better opportunity for most Juneau residents to use the bridge
-The access property is owned by CBJ so the overall cost would be constrained

My second bridge alternative would be Vanderbilt hill option for similar reasons to the Sunny Point options. I don't like the Mendenhall Peninsula option since it would dramatically change an established residential area.

For the bigger picture, I don't think the 2nd crossing is the highest priority project for CBJ funds. I think the city needs to use more funds for improving the dump area (area should be under CBJ control and not private), selling land for residential housing uses and controlling the increasing impacts of cruise ships. All of these areas impact local residents more than a 2nd crossing.

I was trying to keep my comments short and I don't have more time to fully expand on all the comments I've made. Thank you for your consideration.

Sincerely

Jeff Hoover
South douglas island resident

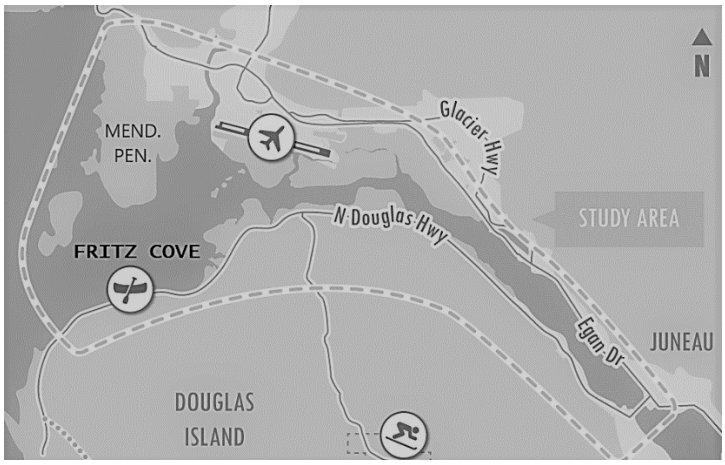
Bruce Baker
[redacted]

TO:

Public Works & Facilities Committee
City & Borough of Juneau
[redacted]

Subject: Juneau Douglas North Crossing

I oppose the proposal for a "Mendenhall Peninsula" bridge which would cross Fritz Cove, the area which includes the North Douglas boat ramp, the CBJ's Fish Creek Natural Area Park, and Bayview Subdivision.



● A "Mendenhall Peninsula" option would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and an essentially new road down the Mendenhall Peninsula.

● It would result in the longest possible travel distances for medical and other first responders, plus most residents' travel to work, shopping, and other activities, in the event that the existing Juneau-Douglas bridge becomes even temporarily unusable for any reason.

● It would have a significant adverse impact on Fritz Cove whales, sea lions, seals, Dungeness crab, anadromous fish utilizing the Fish Creek estuary (coho, pink, chum, and hatchery king salmon; cutthroat trout; and Dolly Varden char), and numerous other fish and invertebrate species which make up the food chain.

● On the east side of both Fritz Cove and your identified "Mendenhall Peninsula" crossing corridor is Bayview Subdivision which consists of more than 60 year-round residential homes, the destruction or disruption of which would be an enormous community impact, the economic cost of which would be a huge financial burden for the CBJ, considering the cost of settling numerous likely lawsuits and making very large buyout payments to displaced homeowners.

● Hopes for development of the west side of Douglas Island are wishful thinking because Juneau's population is not increasing and many government offices have been moving to the Anchorage area. Moreover, no one has come forth with a favorable benefit-cost analysis that takes into account all of the social, economic, and environmental costs of providing highway access directly from the Mendenhall Peninsula across Fritz Cove to North Douglas to facilitate west side development.

In Summary: Of all the identified second crossing alternatives, your "Mendenhall Peninsula" option is the most far out, both literally and figuratively. Your time and energy would be better spent selecting a more practical crossing alternative southeast of the Juneau Airport.

Sincerely,

/s/ *Bruce Baker*

From: Breckan Hendricks
Cc: Katie Koester; Borough Assembly
Subject: FW: Copy of my testimony for May 18th webinar zoom meeting on second channel crossing
Date: Friday, May 19, 2023 9:55:39 AM
Attachments: My May 18th testimony.docx

The attached is Mr. Bruce Baker's public testimony in regards to the 5/18 PWFC Listening Session on the Juneau North Douglas Crossing.

Breckan Hendricks | Administrative Officer
Engineering & Public Works | City & Borough of Juneau, AK
Location: [redacted]
Office: [redacted]

From: Bruce Baker <[redacted]@gmail.com>
Sent: Thursday, May 18, 2023 6:46 PM
To: Breckan Hendricks <[redacted]>
Subject: Copy of my testimony for May 18th webinar zoom meeting on second channel crossing

Hello Breckan -

For the adminstrative record, I'm attaching a copy of the testimony that I prepared for this evening's zoom meeting.

Bruce Baker
[redacted]

From: Carole Bookless
To: Borough Assembly
Subject: Fwd: The CBJ Public Work Session on Juneau Douglas North Crossing PEL Study
Date: Thursday, March 2, 2023 7:01:06 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

I hope the announcement below is not indicative of how this study attempts to get public input. I opened this email at 6:30pm on March 2. It was sent at 1:20pm on March 2. Only inperson comments will be accepted at the meeting. I don't believe that a notification sent out the afternoon of the meeting is adequate. The notice doesn't even really say what the focus of the meeting is. How can anyone give meaningful input?
An additional crossing is needed to benefit both Douglas Island and Mainland Juneau. Any crossing must minimize the impacts to the Mendenhall Wetlands and neighboring private property owners.
The main importance of the crossing is for safety although there would be other benefits. There will be negative impacts as well, but they must be minimized and mitigated as much as possible. I assume that is the point of the study, to identify the plusses and minuses of each possible crossing. My choice is to put the crossing as close to already industrialized areas and away from undisturbed parts of the Mendenhall Wetlands.
Please do a better job of announcing the "public" work session. I put public in quotes because if the public is not aware of the work session, it is not public.
Carole Bookless
Douglas, AK

Begin forwarded message:

From: Juneau Douglas PEL Study Team <jdnorthcrossing@dowl.com>
Date: March 2, 2023 at 1:20:17 PM AKST
To: [redacted]
Subject: The CBJ Public Work Session on Juneau Douglas North Crossing PEL Study
Reply-To: jdnorthcrossing@dowl.com

State Project No. SFHWY00299
Federal Project No. 0003259

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Assembly Public Work Session on Juneau Douglas North Crossing PEL Study Scheduled for March 2, 2023

Please see the Information Release below from the City and Borough of Juneau that we received today. We wanted to make sure those who expressed interest in the PEL study had the opportunity the share input with the CBJ Assembly.

INFORMATION RELEASE

The Public Works and Facilities Committee will host a work session on the Juneau Douglas North Crossing PEL Study on Thursday, March 2, from 5 p.m. to 7 p.m. in the City Hall Assembly Chambers.

The proposed Juneau Douglas North Crossing would construct a second bridge between Juneau and Douglas Island. No preferred route has been selected at this time; a Planning and Environmental Linkages study is currently underway and working to refine preferred alternatives. The Alaska Department of Transportation & Public Facilities has received $7 million in Congressionally Directed Spending for environmental work for this project that will commence when the PEL is complete this fall. CBJ is currently pursuing additional federal funding for design work.

This is an opportunity to give feedback on the project directly to the Assembly. After a presentation on the status of the Planning and Environmental Linkages (PEL) study by Alaska DOT&PF and DOWL engineering, the committee will take public testimony.

Please note that although the meeting will be streamed via Zoom, public testimony will only be taken **in person**. Testimony will be limited to 2-3 minutes per speaker. Comments may also be submitted in writing to **https://boroughassembly@juneau.gov**.

Zoom Information
Link: **juneau.zoom.us/j/94215342992**
Dial-in: 1-253-215-8782
Webinar ID: 942 1534 2992

For media inquiries, please contact Katie Koester at **katie.koester@juneau.gov** or (907) 586-0800 ext. 4181.

JUNEAU DOUGLAS
North Crossing PEL Study

For more information about the project, visit **www.jdnorthcrossing.com**

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by DOT&PF pursuant to 23 U.S.C 327 and a Memorandum of Understanding dated November 3, 2017, and executed by FHWA and DOT&PF.
It is the policy of the Alaska Department of Transportation and Public Facilities (DOT&PF) that no one shall be subject to discrimination on the basis of race, color, national origin, sex, age, or disability, regardless of the funding source, including Federal Transit Administration, Federal Aviation Administration, Federal Highway Administration, Federal Motor Carrier Safety Administration and State of Alaska funds. To file a complaint, go to: https://dot.alaska.gov/cvlrts/complaint.shtml For individuals requiring TTY communications, please contact Alaska Relay 711 or 1-800-770-8973.

Sign up to receive study updates!

DOWL | 9085 Glacier Highway, Suite 102, Juneau, AK 99801

Unsubscribe carobo@rocketmail.com

Update Profile | Constant Contact Data Notice

Sent by jdnorthcrossing@dowl.com in collaboration with

Constant Contact

Try email marketing for free today!

From: Patty Fiorella
To: Borough Assembly
Subject: JD north crossing
Date: Thursday, May 18, 2023 1:45:07 PM

While I'm an old coot who prefers no new crossing, I realize change is coming and see the need for safety/emergency purposes, so I am putting my plug in for Vanderbilt. I think Mendenhall Pen would make it too easy for folks that like to dump their junk and I am seeing that with greater frequency already. I would like to see the least amount of wetlands impacted so do not favor either Sunny Point crossing, but it seems silly to build much closer to town and the existing bridge. Vanderbilt seems like a good compromise with an existing intersection already there. I do pity whoever lives nearby, especially on Douglas, whichever connection you make.

Sent from Yahoo Mail for iPhone

From:	Alisha Falberg
To:	Borough Assembly
Subject:	Juneau Douglas North Crossing PEL Study Comments
Date:	Thursday, March 2, 2023 2:50:04 PM
Attachments:	North Crossing Comment Letter.pdf

Dear Assembly,

I am a Douglas resident and oppose the Juneau Douglas North Crossing. I cannot make the Assembly Public Work Session on Juneau Douglas North Crossing PEL Study this evening, March 2, 2023, but have attached comments on my views herein. These comments were also sent to the DOWL engineering group.

Thank you,
Alisha Falberg

From: Bruce Baker
To: Borough Assembly
Subject: Juneau Douglas North Crossing
Date: Friday, February 24, 2023 5:59:28 PM
Attachments: Feb 24, 2023 letter to Public Works & Facilities Committee.docx

---

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

ATTENTION: Members of the CBJ Assembly Public Works & Facilities Committee -

Attached are my 2-page comments regarding the Juneau North Second Crossing. I will be unable to attend your pulic meeting on this subject because I will be out of state. Thank you for the opportunity to submit the attached written comments in lieu of my testifying in person.

/s/ *Bruce Baker*
[redacted]

From: Linda Baker
To: Borough Assembly
Subject: Juneau North Douglas Crossing comment
Date: Monday, May 15, 2023 8:59:12 AM

Assembly members,

I am unable to attend the Juneau North Douglas Crossing Listening Session on May 18 so I am submitting my comments via this email.

One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle schools. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Vanderbilt Hill provides a good alternative plus it would cut many miles off the trip to Eaglecrest. it would also be one of the least damaging to the environment and one of the most economical.

Sincerely,

Linda Baker
[redacted]

From: Barb Mecum
To: Borough Assembly; Gregory Smith; Christine Woll; Wade Bryson; [redacted] Maria Gladziszewski; Alicia Hughes-Skandijs; Waahlaal Gidaak; Michelle Hale; Beth Weldon; Katie Koester
Cc: [redacted]
Subject: Juneau-Douglas Crossing Listening Session - Comments
Date: Tuesday, May 16, 2023 9:38:12 AM

Dear CBJ Folks,
I appreciate the opportunity for another CBJ Listening Session on May 18, regarding the second crossing. With the Mendenhall Peninsula Alternative oddly back in the mix (already eliminated by the PEL Study back in March, but recently reversed), I am once again submitting my comments here since I am traveling the evening of the 18th and not able to attend in person nor by Zoom.

I remain in opposition to the Mendenhall Peninsula Alternative, and 112 friends and neighbors who agree have signed the petition which states:

Friends of Fritz Cove Petition

Attention: Juneau Assembly & Planning Commission, Alaska Department of Transportation & Public Facilities, and DOWL.

We, the undersigned, oppose a bridge across Fritz Cove between the end of Mendenhall Peninsula and the vicinity of the North Douglas boat launch ramp.

● It would not reduce congestion during peak periods on the Douglas Island Bridge.

● It would be the longest and most expensive (four times more according to estimates) second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula.

● It would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if Douglas Island Bridge was closed. Douglas residents' work and shopping travel times would be extraordinarily long if Douglas Island Bridge were closed.

● It would have a significant negative impact on Fritz Cove whales, sea lions, and other marine life.

● Hopes for the development of the west side of Douglas Island are doubtful

because Juneau’s population isn’t increasing and many government offices are moving to the Anchorage area.

I appreciate the opportunity to be added to the record, and your willingness to hear from Juneau folks on this important issue.

Sincerely,

Barb Mecum



From: Matt Robus
To: Borough Assembly; Borough Assembly
Subject: Matt Robus comments regarding Public Works Committee work session re Second Crossing
Date: Thursday, March 2, 2023 3:32:26 PM
Attachments: Comments to CBJ Assembly re 2nd crossing - Matt Robus.docx

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EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Good afternoon,

I am aware of this afternoon's meeting of the CBJ Assembly Public Works and Facilities Committee regarding the "second crossing" but am currently traveling out-of-state and cannot attend in person. My understanding is that although only in-person testimony will be heard, it is acceptable to submit written comments to the committee. I have been participating in the North Crossing PEL Study since it's inception and I feel it important to express my opinions on this subject, since CBJ will be an important partner if the second crossing project goes forward. I have attached my comments to this email.

Thank you.

Best,

Matt Robus

Aug 29, 2022.

Madam Mayor and Assembly Members, thank you for your service.

My name is Merry Ellefson and I live at [redacted]. I'm following up on emails I've sent on behalf of the North Douglas Neighborhood Association and our second channel crossing subcommittee. NDNA was actively involved in prior efforts undertaken to identify a crossing location in 2005 and 2007.

Tonight we ask you to consider three points regarding the proposed Crossing to ensure there is a well-planned future for North Douglas and the community at large.

- First, we take no position on any Crossing Alternative. As we've said, our interest is to ensure that the Assembly and the public get the best information possible to make the best decisions for North Douglas and our community.

- Secondly, we ask that the CBJ North Douglas Comprehensive Plan be updated.

- Finally, as the only neighborhood directly and clearly impacted by the crossing, we ask that you please engage our Neighborhood Association in the planning process by directly including us- as provided by CBJ Ordinance 96-38am.

Although many of you are new here, these requests are not:) The 2013 CBJ's Comp Plan states the need for a North Douglas neighborhood plan and a study of associated transportation elements. To quote in part: "The analysis of a transport system to North and West Douglas from a new bridge should be conducted in conjunction with a neighborhood planning effort."

Guidelines for Sub area 8 state: "in the near term, conduct a neighborhood plan for North Douglas to address" (and I summarize) traffic, transit, residential use, parks, pedestrian safety, open areas, access to water, recreation, among others.

Recommendation #2 of the 2007 Sheinberg Report states the CBJ "*work with the North Douglas neighborhood to evaluate and plan for the crossing's effect on the neighborhood* which could be *done along with development of a comprehensive plan for the North Douglas sub-area.*"

You can look forward to an email with our crossing history and maps, CBJ correspondence and our collaborative and decades-long efforts around this issue.

We are here to help and support a planning process before any crossing impacts North Douglas.

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
LEVEL I SCREENING RESULTS

MARCH 20, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the Level I Screening Results presented in a technical memorandum dated March 2, 2023, and also participated in the Technical and Stakeholder Advisory Committee meeting on March 6, 2023, and has the following comments on the screening results and issues that the PEL study team will be considering at Level II Screening.

The PEL study team has recommended that only five of the preliminary alternatives advance for further detailed development – West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek. Consistent with our prior comments (and also with comments we made during the last round of second crossing review, in 2005-07), NDNA does not take a position on which of these alternatives is preferable or that best addresses our concerns about impacts to the North Douglas area and our neighborhood. But we want to make several points regarding how these alternatives should be evaluated.

1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.

2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.

3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.

4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.

5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.

Thank you for considering these comments.

From:	Merry Ellefson / Wayne Carnes
To:	Borough Assembly
Cc:	[redacted]; Barb Mecum; jim powell; Margo Waring; Kristie Swanson Poulson; Bruce Baker; Philip Pallenberg; Cinda Stanek/Fred Hiltner; Jack Poulson; [redacted] DKM Personal
Subject:	NDNA Comments on PEL Level I Screening Results
Date:	Monday, March 20, 2023 12:54:30 PM
Attachments:	NDNA Comments on PEL Level I Screening.pdf NDNA comments for Assembly.docx (1).pdf

March 20, 2023

Mayor and CBJ Assembly,

Attached please find the comments of the North Douglas Neighborhood Association (NDNA), Second Crossing Committee, on the PEL Level I screening results.

As a primary stakeholder, we appreciate your consideration of our history and feedback. We look forward to continuing to connect with all of you in person, working to better understand the decision-making points and process.

I've also included NDNA's public testimony from August, 2022 as we support and sustain a vibrant, healthy neighborhood and larger CBJ community.

Thank you for your hard work and time,

Merry Ellefson

For the NDNA Crossing Sub-Committee

January 29, 2023

Dear Juneau Douglas North Crossing PEL Study Team,

I am a resident of Douglas and I strongly oppose any new crossing between Juneau and Douglas. For the reasons set forth below, I do not believe this crossing is necessary, nor do the benefits outweigh the costs. It will have negative environmental and social impacts, and a "no action" alternative has not been adequately analyzed.

First, the rationales for the study – congestion, safety, and the potential for development – do not exist or are not necessary. There is not a congestion problem on the current bridge. I have lived on Douglas for five years and I regularly commute across the bridge for work, recreation, errands, etc. In those five years, the only time I have been backed up and/or made to stop on the bridge was when the bridge was being re-paved. While some data indicates congestion during peak AM commuting hours, thoughtful planners and leaders are learning lessons from COVID that the expanded use of flexible start times and telework options are a better means of alleviating traffic congestion than large, billion-dollar infrastructure investments. According to Alaska DOT's website, the average annual daily traffic numbers for the bridge have declined since 2019. Further, Juneau's population is not growing; rather, it is projected by the Alaska State Demographer to shrink by over 10% through 2050, further demonstrating large, billion-dollar infrastructure investments are not necessary. This project will likely increase community sprawl and create a services cost burden for all community members. The burden outweighs any purported need.

There is also no safety concern. The current bridge has served just fine for Douglas's current population and, if it is properly maintained, should continue to serve that need. If there is a serious concern about the structural integrity of the current bridge, money should more appropriately be spent maintaining the current bridge. Further, should there be an emergency where the bridge cannot be used, helicopters can be utilized, as they are in other emergency and rescue situations in places where road vehicles cannot reach.

Second, the study's stated purposes and needs are not met. One of the stated purposes is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. A new crossing would not achieve this; rather, it would do the opposite. A life cycle analysis of emissions from the construction of any new infrastructure development must be considered in relation to any supposed emission reductions credited to the new infrastructure. The study also states that the new crossing would "increase potential for residential, commercial, industrial, and port development on Douglas Island" and, as highlighted in the Needs Statement, add "additional traffic capacity to support the future development of affordable housing and economic development opportunities." Again, this would not only increase traffic, cars, and use of motorized vehicles, but also increase energy consumption; a direct counter to one of the stated purposes. Further, current non-motorized users, like cyclists, use North Douglas because there is less traffic and less development out there. If there is really a concern for non-motorized users, why seek to increase traffic on North Douglas with a new crossing? This proposal fails to consider current non-motorized users of North Douglas, in direct

contradiction to one of its stated purposes. Funds should more appropriately be spent improving bike lanes and pedestrian walkways for non-motorized users.

One part of the need statement states: “Transportation improvements should avoid, minimize, and mitigate impacts to the environment and to residential areas.” A new crossing would not meet this need, as any of the proposed alternatives would negatively impact the environment in several ways: wetland destruction, habitat destruction, harassment of marine mammals such as whales, seals, and sea lions, ecosystem change, negative impacts to fish (particularly salmon) and crabs, negative impacts to birds, and would create more construction/development on North Douglas which would mean deforestation and further environmental degradation of an area used largely for recreation.

The Gastineau Channel north of the current bridge is currently completely unobstructed and used by non-motorized vessels (such as kayakers) and small motorized vessels from the North Douglas boat launch. Thus, it provides almost pristine and undisturbed habitat for animals such as humpback whales, orcas, sea lions, and seals. It also provides recreational opportunities, like fishing and crabbing. Disturbing this current habitat would negatively impact these creatures, not only harassing them, but degrading their habitat, which in turn impacts locals and tourists alike who enjoy viewing the animals in nature and fishing/crabbing.

More specifically, the proposed crossings would defeat the purpose of Southeast Alaska Land Trust and the U.S. Fish and Wildlife Service’s long-standing partnership program (the Coastal Program), which supports conservation of valuable habitat and recreation opportunities for both wildlife and the public. This Program is one of the Service’s most effective resources for restoring and protecting fish and wildlife habitat on public and privately-owned lands. In Alaska, the Coastal Program focuses on the conservation and restoration of aquatic habitat and habitat connectivity for the benefit of federal trust species with a focus on Pacific salmon. Salmon is an important species for locals, Alaska Natives, and the tourism economy of Juneau. With salmon runs in serious decline in other rivers in Alaska, it is of utmost importance that we protect the salmon here. Most of the proposed crossings are on or connected to Southeast Alaska Land Trust land and would negatively impact the protected coastal lands and wetlands, as well as salmon rivers and streams.

Additionally, the Mendenhall Wetlands are important beyond measure. Much of the wetland habitat on which many species depend on has already been lost, therefore these existing wetlands are critical for shorebirds and other wildlife as these wetlands are one of the few places that provide the necessary food and habitat that these animals need. The wetlands are also a treasured recreation area for Juneau residents and visitors. Centrally located in the capital city, the Wetlands are a popular place for hiking, birding, hunting, and taking in the views. Wetlands have been designated as a globally recognized Important Bird Area by the National Audubon Society. The Refuge was created to preserve the highly productive estuarine wetlands and freshwater marshes, supporting large numbers of both migrating and resident bird populations.

Another part of the need statement asserts that “transportation improvements should maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.” Any new bridge crossing would utterly fail to meet this purported need. A new bridge crossing would be an eyesore on a

currently unobstructed view of the Channel, near and distant islands, mountain ranges, and the pure unobstructed beauty both locals and visitors enjoy out North Douglas, from Mendenhall Wetlands, and from on top of the many mountains which hikers enjoy. Further, any bridge crossing would obstruct views of whale watching and other wildlife. Juneau is known for its scenic beauty and a new bridge crossing would ruin that.

A new crossing would also negatively impact the current recreational use. As stated, many local cyclists ride out North Douglas, as it is one of the few places in Juneau where there is relatively little traffic and safer for recreational riders. The local cycling club has weekly group rides out North Douglas and back in the summer. There are also cycling and running races, like the Douglas Half/Full Marathon. Walkers, hikers, and runners also frequently use this paved road, not to mention the several hikes and walks and views the North Douglas road provides access to. Kayakers and small motor-boaters also use the North Douglas boat launch for recreation. Further, a new tourist attraction – Segway tours – uses North Douglas to show-off Juneau's beauty, nature, and wildlife on a road that currently has little traffic and no obstructed views. A new crossing would both increase traffic and obstruct these views, which negatively impacts current recreational users, locals and visitors alike.

The current alternatives are not well thought-out. All the alternatives currently presented are either too costly, too destructive, located in an avalanche zone or too close to the current bridge to make any difference whatsoever. Another question to ask is whether the alternatives over/under the wetlands have considered glacial rebound. Juneau's wetlands are rebounding at a range rate from 0.33 inches per year to upwards of 0.50 inches per year. With this in mind, it seems like a crossing, whether it be bridge or tunnel, would have to undergo constant monitoring to maintain structural integrity at the least and continuous construction, upkeep, and repairs to account for the changing landscape at the most.

I also saw no analysis of a "no action alternative." Such an alternative should be considered and it should analyze the impacts of and funds needed for simple upkeep of the current bridge. This analysis would most likely show a "no action alternative" would be cheaper, would ensure the current crossing is adequately maintained for safety purposes, and have little to no environmental impacts; thus meeting many of the stated purposes and needs of this study.

A further question that this study has so far failed to address is how any new infrastructure will be maintained. The State and CBJ transportation cannot adequately maintain the existing infrastructure. Several examples of this come to mind. Fish Creek Road going up to Eaglecrest is in terrible condition. With the new gondola and a purported interest in increasing summer and winter tourism up there, traffic will increase on this terrible road. Money should be spent maintaining this road and making sure it is safe instead of a crossing that is not needed, is destructive, and is wasteful. Another example is Thane Road. It is full of potholes and is not well lit. Funds should arguably be spent fixing and maintaining that road, as it is the only way for people who live out Thane to get to/from the rest of Juneau, instead of focusing on a crossing that is not needed.

Thank you for your consideration.
Sincerely,

Alisha Falberg
Douglas, AK.

From: Hillary Reynolds
To: Borough Assembly
Subject: North Douglas Bridge Proposal
Date: Thursday, May 18, 2023 10:29:47 AM

To the Honored Assembly Members,

Hello! My name is Hillary Reynolds, and I reside with my family on Engineers Cutoff Rd. I wanted to share some insight regarding the proposed bridge from Mendenhall Peninsula to North Douglas. There are a few considerations that you may not be aware of without residing in that area.

First of all, you probably realize that the road is narrow. In the winter (when people would be trying to go to Eaglecrest), the road is often reduced to single lane traffic in areas with the snow berms. Without the berms, it is still very narrow in areas and does not have a shoulder which already makes traversing precarious; especially when the Cutoff to Fritz Cove is open. (and that traffic would be comparatively low versus traffic to/from North Douglas!). In order to widen the road, there would be the immense cost of purchasing land from the numerous residentst. Additionally, many of us have our septic drain fields in the front of our houses which means that, unless the city is going to invest in putting everyone in the area on city sewer, then CBJ will have to pay to relocate, re-engineer, and recertify new septic systems. Either way, these added costs will be great, and would up the cost of the project significantly.

While I am not a fan of crossing the wetlands in any case, I would think that the Vanderbuilt crossing would make more sense as it has little residential impact and thus, lower associated costs.

Thank you for your time and consideration,
Hillary Reynolds

From: Jim Dorn
To: Borough Assembly
Subject: North Douglas Crossing -- Mendenhall Peninsula Option, North Airport Option
Date: Friday, May 12, 2023 9:59:16 AM

I believe it is important for the public to know why the decision to Not Advance the Mendenhall Peninsula Option and the North Airport Option in the Initial Draft of the Level 1 Screening Results was reversed. It was, I believe, correctly determined Not to Advance this option and now all of a sudden it is still being considered! Why the change?

It is important for those of us following this project to know what material information resulted in the change.

This kind of unexplained action calls into question the transparency of the entire PEL process.

Jim

From: Corey Baxter
To: Borough Assembly
Subject: North Douglas Crossing
Date: Thursday, May 18, 2023 9:37:53 AM
Attachments: image001.png

Assembly Members,

The Operating Engineers local 302 is in full support of a North Douglas Crossing. We believe that the crossing should be as fair away as possible from the current Juneau Douglas Bridge. The 3 options that make the most sense would be
Mendenhall Peninsula, West Sunny point area and Sunny point area. Our members look forward to building this project someday. Thanks

Corey Baxter
District 8 Representative
Operating Engineers Local 302
[redacted]

From: Allen Shattuck
To: Borough Assembly
Subject: North Douglas Crossing
Date: Thursday, March 2, 2023 1:47:50 PM

I strongly support the second North Douglas Crossing and urge the Assembly to proceed with the project as rapidly as possible.

The main reason I support it is for public safety. If the current bridge was unavailable for any reason, public safety would be severely hampered and could be life threatening.

My second reason for supporting it is the improved access between North Douglas and the Lemon Creek/Mendenhall Valley areas. The improved access would in turn also result in shorter drive times and therefore reduce CBJ impact on climate change and result in saving s for local residents.

Finally, it appears that the most beneficial crossing point would be the Sunny Point option.

Thanks in advance for considering my comments.

Allen Shattuck
[redacted]

Virus-free.www.avg.com

From: Jim Dorn
To: Borough Assembly; Katie Koester
Subject: North Douglas PEL
Date: Thursday, March 2, 2023 10:30:56 AM

Madam Mayor and Assembly Members:

I have been following this study since the beginning and it appears that all initial alternatives are still under consideration. I assume that at some point a preliminary screening of alternatives will take place to eliminate alternatives that are not feasible based on design issues, estimated cost, professional judgement, environmental concerns and available site data. Until the preliminary screening of alternatives is ready for public comment, it appears there is nothing new from the previous public meetings held by ADPTPF and DOWL to comment on.

My previous comments are part of the public record and are being considered by the PEL project team. Regardless, here is a summary of a few important issues from those comments to be included in CBJ's public meeting record:

1) Alternatives in the area from the eastern end of the runway to and including Fritz Cove should be eliminated from further consideration for the following reasons:

a) Juvenile king crab are frequently caught in pots between Fish Creek and the North Douglas boat ramp, particularly during late spring. This area is an important rearing area for king crab and important for recovery of the king crab personal use harvest in the Juneau area.

b) Several hundred personal use dungeness crab pots are set each summer between Fish Creek and the North Douglas Boat ramp. This area is an important rearing and personal use harvest area for dungeness crab. Personal use crab fishing is an important part of the Juneau economy.

c) During the peak of the coho and king salmon season there are regularly 50 to 100 boats in Fritz Cove targeting returning salmon between Fish Creek and the North Douglas boat ramp. This fishery in important to Juneau sport fishers and charter operators. Sport fishing in Juneau is an important part of the local economy.

d) During coho and king salmon season over 60 people are regularly observed between Fish Creek and the eastern edge of the airport runway targeting fish returning to DIPAC. This area is important to Juneau sport fishers and provides one of the best shore based fisheries in Alaska. Sport fishing in Juneau is an important part of the local economy.

e) Each summer kayak tours leave the North Douglas boat ramp and paddle to Fish Creek. Over the course of the summer there are literally several thousand tourists that take this tour. The Fritz Cove area is important to Juneau's tourism industry.

With regards to crossing alternatives between the eastern end of the runway and Salmon Creek, consideration should be give to an elevated crossing on concrete pilings to allow unrestricted sediment movement resulting in minimum impact to the Mendenhall Wetlands Wildlife area and to fish passage.

Thank you for the opportunity to comment.

Jim Dorn
[redacted]

From: Heather Nelson
To: Borough Assembly
Subject: North Douglas Second Crossing - Priority List
Date: Wednesday, January 25, 2023 12:56:32 PM
Attachments: CBJ Priorities Ltr to Assembly.pdf

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Good afternoon,

I am writing you to request that you reorganize the priorities and move the North Douglas Second Crossing back up the legislative priority list, in the top 3. Simply put, the timing could be critical as there is a position to have access to the significant amount of funding that is required for the project. The Chamber has recently submitted a letter to the assembly, which is attached, and I mirror its support and efforts.

Thank you for your consideration!

Warm Regards,

Heather Nelson, Community Affairs & HR Supervisor
Hecla Greens Creek Mining Company
[redacted]

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From:	Margo Waring
To:	Borough Assembly; Beth Weldon
Cc:	DOUGLAS MERTZ
Subject:	PEL second crossing
Date:	Tuesday, May 16, 2023 1:42:30 PM

PEL Comments May 16, 2023: Juneau Borough Assembly

Thank you for the opportunity to comment on the work of the PEL study.

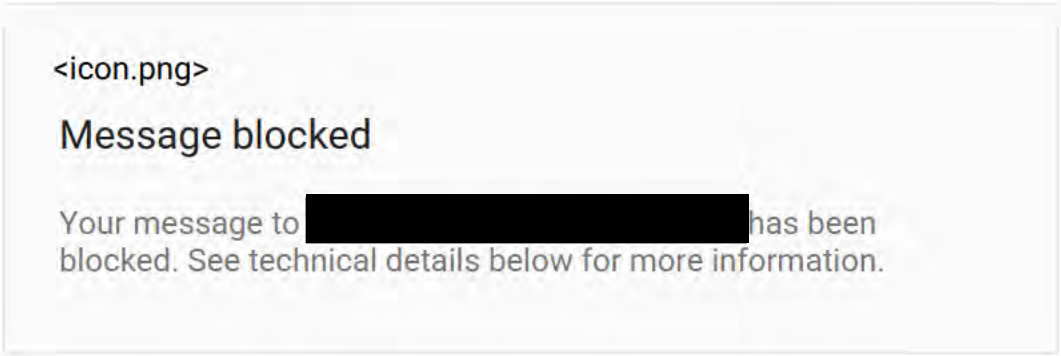
First, to the best of my knowledge, residents on North Douglas have identified a need for faster access to emergency services, especially medical services, and Valley locations. Mendenhall Valley residents have identified recreational access (Eaglecrest, Fish Creek park, 9 Mile Creek, and winter marine mammal viewing at Fritz Cove. Commercial interests have been interested in expanding recreational uses of North Douglas for summer tourists. There are crossing alternative between the airport and downtown that meet most of these goals. But we should note that crossing alternatives beyond the airport actually diminish or negate these goals. For example, a Mendenhall Peninsula crossing would diminish tourist use of kayak tours, diminish opportunities for extremely popular winter marine mammal viewing, and so forth. Please note that these locations, popular with both residents and commercial visitors would be jeopardized or lost for those crossing locations beyond the airport in support of interests that would profit from commercial opportunities based on public investment of scores f millions of dollars to make their aspirations viable. In summary, the Mendenhall Peninsula and other alternatives north of the airport not only fails to meet residents' stated needs but actively harms them in both the short and long term.

I also ask the Assembly to consider that Juneau's population is forecast to continue to decline over the next decade. If the forecast proves correct, it means that property tax and other tax burdens will be shared by a stable or declining population and, even factoring out debt retirement, the burden of a second crossing and the subsequent push to implement the expansive West Douglas plan for new CBJ roads, water, sewer, schools, waste disposal, police and fire infrastructure and base costs, run the risk of an insupportable tax burden, even if the docks and associated infrastructure are built with debt and operating costs are paid for by the shipping and cruise industries.

I urge you to continue to consider carefully in deciding whether and where a second crossing should be built, weighing not only the extent to which alternatives meet stated residents' goals and willingness to increase tax burdens but also weigh increased "access" against lost access and lost environmental and ecological resources.

Margo Waring


On May 16, 2023, at 2:34 PM, Mail Delivery Subsystem <mailer-[redacted]> wrote:



The response from the remote server was:

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Arrival-Date: Tue, 16 May 2023 14:34:46 -0700 (PDT)
X-Original-Message-ID: <442F7F03-09FE-4B29-A60C-8564FA09BCB5@gmail.com>

Final-Recipient: rfc822; [redacted]
Action: failed
Status: 5.4.1
Remote-MTA: dns; juneau-org.mail.protection.outlook.com. (104.47.64.110, the server for the domain juneau.org.)
Diagnostic-Code: smtp; 550 5.4.1 Recipient address rejected: Access denied. AS(201806281) [BL0GCC02FT028.eop-gcc02.prod.protection.outlook.com 2023-05-16T21:34:48.148Z 08DB5646687C6F18]
Last-Attempt-Date: Tue, 16 May 2023 14:34:48 -0700 (PDT)

From: Margo Waring <[redacted]>
Subject: PEL Study-Second Crossing
Date: May 16, 2023 at 2:34:45 PM PDT
To: [redacted]
Cc: DOUGLAS MERTZ <[redacted]>

From: Royal T. Hill
To: Morgan McCammon; Daugherty, Leslie K (DOT); [redacted]; George Schaaf; Patty Wanto; [redacted]; Lindgren, Jesse W (DFG); [redacted]; Lynae Craig; [redacted]; Scott Erickson; [redacted] Wade Bryson; Christine Woll; Gregory Smith; Maria Gladziszewski [redacted] Dan Jager; kbitsiarson; Edward Schoenfeld; Spencer, Kari; [redacted] Stephanie Banua; "Daniel King"; Borough Assembly; Matt Little; Dave Hanna; Alaska Concrete Casting
Cc: Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Mounce, Christina L A (DOT); Katie Koester; Irene Gallion; John Bohan; Steven Noble; Renee Whitesell; Nina Keller Horne; Jovie Garcia; Theresa Dutchuk; Sean Holland; Ryane Gray; Marella Gungob; Michael Horntvedt; Mike Hall
Subject: RE: [EXTERNAL]Juneau Douglas North Crossing Advisory Committee Update
Date: Tuesday, May 2, 2023 3:30:57 PM

Good afternoon,

I am curious on how it came to be that there would need to be a tunnel for the North Airport crossing. I was involved in this group, and we established that the **road can be 500 feet from the end of the runway**. I even mentioned during one of the meetings that when we drove pilings for the Brotherhood bridge that we did not hit bedrock until we hit the depth of 175 feet. A tunnel is not possible because it is all silt. This route is the shortest distance and doing a Key West style crossing would be the cheapest option.

Thank you everyone.

Royal T. Hill Jr.
Tribal Development Department
Central Council of the Tlingit and Haida Indian Tribes of Alaska
[redacted] • Juneau, Alaska 99801
Mailing Address: [redacted]
[redacted] W: www.ccthita.org • FB: www.facebook.com/ccthita

From: Morgan McCammon <mmccammon@dowl.com>
Sent: Tuesday, May 2, 2023 2:48 PM
To: Daugherty, Leslie K (DOT) <[redacted];

[redacted]; Lindgren, Jesse W (DFG) [redacted]; Lynae Craig [redacted]; Royal T. Hill <[redacted]>; Edward Schoenfeld <[redacted]>; Spencer, Kari [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; Stephanie Banua [redacted]; 'Daniel King' <[redacted] Matt Little [redacted]; Dave Hanna [redacted]; Alaska Concrete Casting [redacted]>

Cc: Heidemann, Marie E (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]; Kolwaite, Douglas S (DOT) <douglas.kolwaite@alaska.gov>; Mounce, Christina L A (DOT) <[redacted]>; Katie Koester <[redacted]>; Irene Gallion [redacted]; J[redacted]; Steven Noble <[redacted]>; Renee Whitesell [redacted]; Nina Keller Horne <[redacted]>; Jovie Garcia [redacted]; Theresa Dutchuk [redacted]; Sean Holland <[redacted]>; Ryane Gray <[redacted]>; Marella Gungob [redacted]; Michael Horntvedt [redacted]; Mike Hall [redacted]>

Subject: [EXTERNAL]Juneau Douglas North Crossing Advisory Committee Update

Good afternoon, Juneau Douglas North Crossing Advisory Committee Members,

Thank you for your continued participation in the Juneau Douglas North Crossing PEL Study Advisory Committees. We appreciate the feedback provided on the draft Level 1 Screening Memo. This feedback resulted in some changes that we wanted to share. Attached are the revised Level 1 Screening Memo and the comment response matrix developed to address comments received from Advisory Committee members.

Here is a summary of the study team's response to comments:

- The study team added the Mendenhall Peninsula alternative to the list of detailed alternatives continuing on through Level 2 Screening based on Advisory Committee member feedback. The description in the Level 1 Screening Memo (pages 8-10) was updated.

Some feedback was directed to Level 2 Screening and will be considered as the study team conducts Level 2 Screening, such as:

- Reviewing community area plans and documenting whether alternatives are consistent with these.
- Documenting potential positive and negative impacts on mitigation properties, recreational access, viewsheds, interchanges on both sides of a potential crossing, airport operations, freight, economic considerations, emergency response, and land ownership.
- Developing more details, including structure types and interchanges, for the alternatives to compare with the requirements and protections of natural resources in the area, including the Mendenhall Wetlands State Game Refuge, fresh and marine water resources, habitat, and others.
- Developing cost analysis for each detailed alternative.

Also attached are the Origin Destination Data and Bridge Volume Forecast Memos referred to in previous meetings.

We will be sharing information soon for the next Advisory Committee meetings to discuss the draft Level 2 Screening results. Based on feedback received regarding a preference, we will hold two meetings presenting the same information, one in-person and one virtual. We will invite members of both Advisory Committees to attend one or the other based on their preference. While we plan on sharing screening results, we will ensure to provide ample time for group discussions.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Katie Koester
To: Linda Baker; Meredith Thatcher; Breckan Hendricks; Beth Weldon; Borough Assembly
Subject: RE: Assembly To Hold Juneau North Douglas Crossing Listening Session on May 18
Date: Friday, May 12, 2023 3:51:05 PM

Hi Ms. Baker,

CBJ has heard feedback from the public that the PEL process does not include an opportunity to give public testimony in the form of oral comments, so Chair Bryson has arranged for this session to have a platform for that. Different people prefer different means of communication, but rest assured written comment is always welcome and considered part of the public record (BoroughAssembly@juneau.gov). The last listening session went for an hour and half (though it was scheduled for longer), so that is where the timing came from. There is no intention to cut people off and we can extend the time to make that clear.

The PEL process is run by ADOT, and although CBJ is a partner, it is not a CBJ project. This is another reason why the Assembly wanted to provide an opportunity for the public to communicate directly.

I will clarify how to submit written comment and extend the time when issuing a reminder press release later next week.

Thank you for your comments and helping this be a fruitful experience for everyone.

Best,

Katie Koester
EPW Dir.

From: Linda Baker <[redacted]@gmail.com>
Sent: Friday, May 12, 2023 10:14 AM
To: Meredith Thatcher <[redacted]>; Katie Koester [redacted]; Breckan Hendricks [redacted]>; Beth Weldon <[redacted]>; Borough Assembly <[redacted]>
Subject: Re: Assembly To Hold Juneau North Douglas Crossing Listening Session on May 18

Hello,

It seems to me the assembly should also be taking written comments regarding the Juneau North Douglas Crossing Listening Session on May 18. By taking only vocal comments in the allotted hour and a half the assembly will not even come close to getting an accurate gauge of what the community wants.

It also seems the assembly members have already made up their minds as to what they hope for as they are calling this meeting the Juneau **North** Douglas Crossing Listening Session.

Come on! Let's get a more accurate and fair response from your constituents. You might try reading the responses given to the (PEL) study. I'm sure that will give you a much more

accurate view of what Juneauites want than this "listening" session.

Sincerely,

Linda Baker

From: Churchwell, Roy T (DFG)
To: Morgan McCammon; Daugherty, Leslie K (DOT); Alimi, Adeyemi S (DEC); Kanouse, Kate M (DFG); Meitl, Sarah J (DNR); George Schaaf; Patty Wahto; david.gann; linda.shaw; [redacted]; Rypkema, James (DEC); [redacted]; Cody Hargreaves; [redacted]; Teske, Daniel J (DFG); Purves, Nathan A (DOT); Bjornlie, Nichole L; Markegard, Sarah I; carol_mahara@fws.gov; Kroes, Preston M (DNR); Hillgartner, Megan G (DNR); Auger, Mason J (DNR); [redacted]; Despain, Timothy J (DPS); [redacted]; Holst, Brian (CED sponsored); [redacted] robert venables; [redacted] Wade Bryson; Christine Woll; Gregory Smith; Maria Gladziszewski; [redacted]; Dan Jager; [redacted]; Schlingheyde, Catherine (LEG); [redacted]; King, Daniel (CED sponsored); [redacted]; Borough Assembly; Dave Hanna; Alaska Concrete Casting
Cc: Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Mounce, Christina L A (DOT); Katie Koester; Irene Gallion; Alec Venechuk; snoble; Renee Whitesell; Nina Keller Horne; Garcia, Jovie A (DOT sponsored); Dutchuk, Theresa (DOT sponsored); Holland, Sean (DOT sponsored); Michael Horntvedt; Mike Hall
Subject: RE: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Monday, March 20, 2023 9:04:24 AM

Hello Morgan and PEL Study Team,

I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document.

Roy

From: Morgan McCammon <[redacted]>
Sent: Tuesday, March 7, 2023 11:51 AM
To: Daugherty, Leslie K (DOT) [redacted]>; Alimi, Adeyemi S (DEC) <[redacted]>; Kanouse, Kate M (DFG) <[redacted]>; Churchwell, Roy T (DFG) [redacted]>; Meitl, Sarah J (DNR) <[redacted]>; [redacted]; Patty Wahto (DOT-sponsored) <[redacted]>; david.gann <[redacted]>; linda.shaw [redacted]>; [redacted]; [redacted]; Rypkema, James (DEC) <[redacted]>; [redacted];

Cody Hargreaves [redacted]; [redacted]; Teske, Daniel J (DFG) [redacted]; Purves, Nathan A (DOT) [redacted]>; Bjornlie, Nichole L <[redacted]>; Markegard, Sarah I [redacted]>; [redacted]; Kroes, Preston M (DNR) [redacted]>; Hillgartner, Megan G (DNR) [redacted]>; Auger, Mason J (DNR) [redacted]>; [redacted]; [redacted]; Despain, Timothy J (DPS) <[redacted] Holst, Brian (CED sponsored) [redacted]; robert venables [redacted] Schlingheyde, Catherine (LEG) <[redacted] King, Daniel (CED sponsored) [redacted] Dave Hanna [redacted]; Alaska Concrete Casting <[redacted]>

Cc: Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) [redacted]v>; Lockwood, Gregory K (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) <[redacted]v>; Mounce, Christina L A (DOT) [redacted]>; Katie Koester [redacted]; irene.gallion [redacted]; Alec Venechuk [redacted]>; snoble [redacted]>; Renee Whitesell [redacted]; Nina Keller Horne [redacted]; Garcia, Jovie A (DOT sponsored) [redacted]; Dutchuk, Theresa (DOT sponsored) [redacted]; Holland, Sean (DOT sponsored) [redacted]; Michael Horntvedt <[redacted]>; Mike Hall <[redacted]>

Subject: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Advisory Committee Members,

Thank you for your participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We appreciate the feedback provided at the meeting.

For those who were unable to attend, please see the attached presentation from yesterday's meeting. Also attached is the draft Level 1 Screening Memo. **Please provide comments on this draft memo by March 20, 2023.**

As many of you are aware, the City and Borough of Juneau (CBJ) Assembly Public Works and Facilities

Committee held a public work session on March 2, 2023, requesting public testimony on the study and any future project that may result. The Assembly Committee has said they will provide additional opportunities for public testimony and will accept comments electronically. The CBJ Assembly email address, work session packet, and Zoom meeting recording are available in the links below:

- CBJ Assembly email address: BoroughAssembly@juneau.gov *Please share your comments with the study team as well: jdnorthcrossing@dowl.com
- SOA DOT&PF Presentation - 3/2/2023 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf
- YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: [redacted]
To: Borough Assembly; Merry Ellefson / Wayne Carnes
Cc: Barb Mecum; jim powell; Margo Waring; Kristie Swanson Poulson; Bruce Baker; Philip Pallenberg; Cinda Stanek/Fred Hiltner; Jack Poulson; [redacted]; DKM Personal
Subject: Re: NDNA Comments on PEL Level I Screening Results--ADF&G wildlife comments
Date: Tuesday, March 21, 2023 10:11:52 AM

Hi,

I was just in my spam account and saw this. I'm not sure if everyone saw this, and I think it's worth passing onto everyone if not, so sorry if it's already old news. It's from Roy Churchill the ADF&G Juneau Area Wildlife Manager.

Hello Morgan and PEL Study Team,

I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document.

Roy

On Monday, March 20, 2023 at 12:53:48 PM AKDT, Merry Ellefson / Wayne Carnes [redacted] wrote:

March 20, 2023

Mayor and CBJ Assembly,

Attached please find the comments of the North Douglas Neighborhood Association (NDNA), Second Crossing Committee, on the PEL Level I screening results.

As a primary stakeholder, we appreciate your consideration of our history and feedback. We look forward to continuing to connect with all of you in person, working to better understand the decision-making points and process.

I've also included NDNA's public testimony from August, 2022 as we support and sustain a vibrant, healthy neighborhood and larger CBJ community.

Thank you for your hard work and time,

Merry Ellefson

For the NDNA Crossing Sub-Committee

From: Margo Waring
To: Morgan McCammon
Cc: Beth Weldon [redacted]; Wade Bryson; Christine Woll; Gregory Smith; [redacted] kbitslarson; Edward Schoenfeld; Spencer, Karl; [redacted]; Cathy Schlingheyde; [redacted] Daniel King; Matt Robus; Dave Hanna; Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; Irene Gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell; Barb Mecum; Merry Ellefson Wayne Carnes; Michael Stanley; fernleafgt; Borough Assembly; Ben Hohenstatt; Rep. Andi Story
Subject: Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee
Date: Monday, January 9, 2023 1:14:36 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Thank you for sending along these materials. My comments are below.

The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island.

This is "purpose creep" and a focus created by the PEL Study Team that is unfair to both the original intent and to public process. It is not the job of the PEL Study Team to re-write the study's purpose to skew favor toward one or more alternatives, perhaps expecting that we will not notice as our eyes slide over the bureaucratic language.

The study has all along used the purpose language of : "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What makes for affordable housing? Experts know that affordable housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable population and where existing services and infrastructure exist.

That leaves as a purpose "economic development", the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.

On Jan 9, 2023, at 10:05 AM, Morgan McCammon [redacted]> wrote:

draft Recommended Alternative Selection Criteria Memo

From: Dave Hanna
To: Margo Waring
Cc: Morgan McCammon; Beth Weldon; [redacted]; Wade Bryson; Christine Woll; Gregory Smith [redacted] Edward Schoenfeld; Spencer, Kari; [redacted] Cathy Schlingheyde; [redacted]; Daniel King; Matt Robus; Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; Irene Gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell; Barb Mecum; Merry Ellefson Wayne Carnes; fernleafgt; Borough Assembly; Ben Hohenstatt; Rep. Andi Story
Subject: Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee
Date: Wednesday, January 11, 2023 10:24:08 AM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Greetings all,
In regards to Ms. Warings' comments on mission creep, I believe she is splitting hairs here as well as misconstruing the intent. If the language didn't say the north end of Douglas island it could move the crossing south of the current bridge. Looking at a map shows that anything north of the bridge is on the north end of the island. And as far as " affordable housing" location criteria, public utilities are actually available all the way out to Bayview Subdivision, and no matter where subdivisions are built, clearing and filling are necessary. Indeed one of the largest expenses is filling, and the far north end of the island has rock resources on the actual subdivision sites which drastically reduces the cost of development. I commend the work of the team so far in recognizing all the aspects to consider in this study.
Respectfully,
Dave Hanna

On Mon, Jan 9, 2023 at 1:14 PM Margo Waring <[redacted]> wrote:

> Thank you for sending along these materials. My comments are below.
>
> The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island.
>
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housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable population and where existing services and infrastructure exist.

That leaves as a purpose "economic development", the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.

On Jan 9, 2023, at 10:05 AM, Morgan McCammon <[redacted]> wrote:

draft Recommended Alternative Selection Criteria Memo

From:	juliebednarsk[redacted]
To:	Borough Assembly; Merry Ellefson / Wayne Carnes
Cc:	Barb Mecum; jim powell; Margo Waring; Kristie Swanson Poulson; Bruce Baker; Philip Pallenberg; Cinda Stanek/Fred Hiltner; Jack Poulson; [redacted]; DKM Personal
Subject:	Re: NDNA Comments on PEL Level I Screening Results--ADF&G wildlife comments
Date:	Tuesday, March 21, 2023 10:11:52 AM

Hi,

I was just in my spam account and saw this. I'm not sure if everyone saw this, and I think it's worth passing onto everyone if not, so sorry if it's already old news. It's from Roy Churchill the ADF&G Juneau Area Wildlife Manager.

Hello Morgan and PEL Study Team,

I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document.

Roy

On Monday, March 20, 2023 at 12:53:48 PM AKDT, Merry Ellefson / Wayne Carnes [redacted]> wrote:

March 20, 2023

Mayor and CBJ Assembly,

Attached please find the comments of the North Douglas Neighborhood Association (NDNA), Second Crossing Committee, on the PEL Level I screening results.

As a primary stakeholder, we appreciate your consideration of our history and feedback. We look forward to continuing to connect with all of you in person, working to better understand the decision-making points and process.

I've also included NDNA's public testimony from August, 2022 as we support and sustain a vibrant, healthy neighborhood and larger CBJ community.

Thank you for your hard work and time,

Merry Ellefson

For the NDNA Crossing Sub-Committee

From: [redacted]
To: [redacted]
Cc: [redacted]; Alec Venechuk; Craig Dahl; Jodi Garza; John Blasco; Laura Martinson; Maggie McMillan; Max Mertz; Roger Calloway Jr.
Subject: RE: North Douglas Crossing Ranking on CBJ Assembly"s 2023 CIP Priority List
Date: Tuesday, February 21, 2023 12:10:01 PM
Attachments: 2023-02-21 Letter in Support of USDOT RAISE Grant.pdf
Importance: High

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Dear US Department of Transportation:

I have attached my letter in support of a RAISE grant being approved for the Juneau-Douglas North Crossing.

Please contact me with any questions.

Thank you for your consideration.

Sincerely,

Tom Williams

[redacted]

"Communication is the lifeblood of every organization and relationship."

This email is intended only to be read or used by the addressee. It is confidential and may contain legally privileged information. If you are not the addressee indicated in this message (or responsible for delivery of the message to such person), you may not copy or deliver this message to anyone and

From:	Carl Uchytil
To:	jdnorthcrossing@dowl.com; Borough Assembly
Cc:	Katie Koester; Matthew Creswell; Harbor Board; Matthew Sill
Subject:	RE: Public Worksession on Juneau North Douglas Crossing Project Scheduled for March 2
Date:	Thursday, March 2, 2023 11:44:24 AM
Attachments:	Board Comments_2nd Crossing_28FFEB2023.pdf

Dear CBJ Assembly & Dowl Engineering,
The attached memo is provided on behalf of the CBJ Docks & Harbors Board of Directors.
Sincerely,
Carl

Carl J. Uchytil, P.E.
Port Director
City & Borough of Juneau
[redacted]
www.juneau.org/harbors
My email has changed to [redacted]

From: Meredith Thatcher [redacted]>
Sent: Friday, February 24, 2023 2:11 PM
Subject: Public Worksession on Juneau North Douglas Crossing Project Scheduled for March 2

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

155 S. Seward Street • Juneau, Alaska 99801 • 907-586-5240

INFORMATION RELEASE
February 24, 2023

Public Worksession on Juneau North Douglas Crossing Project Scheduled for March 2

The Public Works and Facilities Committee will host a worksession on the Juneau North Douglas Crossing project on Thursday, March 2 from 5 p.m. to 7 p.m. in the City Hall Assembly Chambers.

The proposed Juneau North Douglas Crossing would construct a second bridge between Juneau and Douglas Island. No preferred route has been selected at this time; a Planning and Environmental Linkages study is currently underway and working to refine preferred alternatives. The Alaska Department of Transportation & Public Works has received $7 million in Congressionally Directed Spending for environmental work for this project that will commence when the PEL is complete this fall. CBJ is currently pursuing additional federal funding for design work.

This is an opportunity to give feedback on the project directly to the Assembly. After a presentation on the status of the Planning and Environmental Linkages (PEL) study by Alaska DOT&PF and DOWL engineering, the committee will take public testimony.

Please note that although the meeting will be streamed via Zoom, public testimony will only be taken **in person**. Testimony will be limited to 2-3 minutes per speaker. Comments may also be submitted in writing to boroughassembly@juneau.gov.

Zoom information

Link: juneau.zoom.us/j/94215342992

Dial-in: 1-253-215-8782

Webinar ID: 942 1534 2992

For more information about the project, visit jdnorthcrossing.com

###

For media inquiries, please contact Katie Koester at [redacted]

--

Meredith Thatcher
Public Information Officer
City & Borough of Juneau
[redacted]

Follow CBJ on Facebook, Twitter & Instagram

From: boni parker
To: Borough Assembly
Subject: Salmon creek is the wrong location for the second crossing
Date: Monday, May 22, 2023 1:05:27 PM

Greetings,

Unfortunately, I was unable to participate in the listening session regarding the second crossing due to work commitments but I still wanted to share my opinion and hopefully haven't completely missed my opportunity. I was very surprised to see in the Juneau Empire that the majority of the participants support the Salmon creek location. In my opinion, this is too close to the current bridge to be effective or worth the cost. It's going to be a costly investment either way, but it won't be worth the investment if it's in the wrong place.

As far as environmental impact on the wetlands goes, we already have a dump and an airport in the wetlands. A bridge wouldn't have anywhere near the negative impacts that those things already have. It makes the most sense from that perspective to keep the bridge closer to those sites, rather than spreading out the impacted areas.

As far as traffic mitigation goes, it makes the most sense to connect high traffic areas. The sunny point crossing would connect North Douglas to the most central location on the mainland, close to the industrial area, the airport and the hospital. On the Douglas side, it is much closer to Eaglecrest and the North Douglas Boat launch, which are the only destinations on the north side of the island.

From a North Douglas Resident who commutes to Auke Bay for work three times weekly and strongly supports a second crossing, the Sunny Point locations are the obvious choice.

Bonilyn Parker

From: greg capito
To: Borough Assembly
Subject: Second Crossing
Date: Tuesday, May 16, 2023 4:05:18 PM

With the city's population in a steady decline, this project is not necessary or needed. Instead, focus resources on maintenance of our existing highway system which is in serious need of repair.

From: P Rorick
To: Borough Assembly
Subject: Second crossing
Date: Sunday, May 21, 2023 7:04:43 PM

Hello!
Thank you for taking comments on the proposed second crossing from Douglas to Juneau.
I do not support a second crossing at this time. I have attended several information sessions and the need for this project has not been proved to me. It is a huge expense and unnecessary. Please use the money for projects that are needed.
Thank you,
Patricia Rorick
Juneau, AK
[redacted]

From: [redacted]
To: Borough Assembly
Subject: Second Crossing
Date: Friday, February 3, 2023 11:41:10 AM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

To CBJ Assembly
From Tom Rutecki
please see my comments that are due today February 3 on the second crossing. It looks like CBJ Will be involved in this process in due time as it was when it came up for vote some years ago. I would just like to caution the assembly not to support any alternative that crosses through the wetlands.see my comments on
AS 16.20.034, the Mendenhall Wetlands State Management Plan. If one of the alternatives is selected that goes through the wetlands there will be many years of litigation and it would be best to select other alternatives as I have in the last paragraph of my narrative.

Bye

Tom

Thank you for the opportunity to comment on the North Crossing PEL Study Preliminary Alternatives. There is very sparse information provided on each alternative, which makes it difficult to review them. However, there are some general characteristics for the alternatives that can be used to prioritize which ones go forward to Level 2 screening in your process.
The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Scoping Document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion, except perhaps for the Downtown. Again, there is no design detail, but it seems likely that a situation compromising the existing crossing could also impact this alternative.
For the other seven alternatives, there is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas residents, and would greatly increase transport time for this population if the current crossing was compromised. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out the best alternative to provide reduced transport/response time, with it placing you at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to the additional goals identified for the projects. For example, there is a north to south gradient in how well the alternatives improve access to North Douglas Island to support economic development. I am particularly concerned with how well the alternatives "avoid, minimize, and mitigate impacts to the environment…" and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." It is difficult to overstate the ecological, environmental, and scenic importance of the wetlands encompassed by the study area. The Mendenhall Wetlands are a Globally Recognized Important Bird Area, providing critical habitat for migratory and resident birds. The Wetlands are also important fish and wildlife habitat and heavily utilized by human hunters and fishers, as well as birders, dog-walkers, joggers, the list goes on. The scenic viewscapes are recognized in the Juneau Comprehensive Plan, including the view from North Douglas towards the Mendenhall Glacier and up Stephens Passage, and the view inbound from Egan towards Gastineau Channel. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall the State Game Refuge. We also need to recognize that over 40% of the original wetlands have been filled and developed since the gold mining boom of the late 19th and early 20th century up until today. The incremental destruction and sectioning of the wetlands emphasizes the need for choosing a crossing alternative that has minimal impact on the integrity of the refuge and the ecosystem functions of the Wetlands.

The best way to maintain the integrity of the refuge is to keep the crossing out of the refuge. In accordance with AS 16.20.034, the Mendenhall Wetlands State Management Plan specifies that the use for a public transportation corridor is allowed only if "there is significant public need for the corridor which cannot be reasonable met off-refuge". For the Second Crossing, there are alternatives that could be designed so they do not encroach on the Refuge. Excluding Downtown, these are Eagle, Salmon Creek and the two northwest alternatives. The other three alternatives (Sunny Point,Vanderbilt, and Twin Lakes) would directly impact the refuge. The amount of impact would vary with the type of structure, with earth-fill causeway causing the most damage from the fill, changes to the hydrodynamics of the tidal flows through the southern refuge, and forming barriers to fish, bird, and wildlife movement. These alternatives also would impact the scenic viewscape to a much greater degree than Salmon Creek or Eagle. By far the worst of these alternatives is the Sunny Point crossing in terms of environmental and scenic impact.

The two Northwest alternatives could be designed to minimize wetland impacts, depending on how the entry/exit points are designed. By going under the Refuge, a North Airport tunnel could result in minimal environmental impact, as long as the entry/exit points were well upland. The Mendenhall Peninsulacrossing could be aligned to stay out of the Refuge at the Peninsula, then make landing west of the North Douglas boat ramp. As noted before, these alternatives best meet the perceived need for access to North Douglas development (and Eaglecrest from the

valley), but are also lowest in terms of emergency access. The cost is also likely to be very high relative to other options. The Mendenhall Peninsula option would also disrupt the highly-valued viewshed and require significant development to provide access from Glacier Highway.

Salmon Creek and Eagle are the best options to minimize impacts to the Refuge and associated wetlands. Salmon Creek has the advantage of an existing interchange, and as noted early on, provides the best emergency access. Eagle is a bit more removed from the Refuge and viewscape, but would require a new intersection on Egan and as described in the alternative descriptions, could have avalanche issues. Of course, every mile south decreases savings in travel time to Eaglecrest and North Douglas relative to more northern alternatives, but those out- comes are a reasonable trade-off for the benefits of maintaining the integrity of the Refuge and the ecosystem processes that sustain it.

In conclusions, I recommend the Eagle, Salmon Creek, North Airport, and Mendenhall Peninsula options move forward to Level 2 scoping. While I think that Salmon Creek is the best option, considering these four alternatives in detail would allow quantitative comparisons of the environmentally acceptable options in terms of emergency access, transportation facilitation, neighborhood impacts, and costs.

From: Gina Heffern
To: Borough Assembly
Subject: Second Crossing Comment
Date: Tuesday, May 16, 2023 1:51:29 PM

Members of the Assembly,

I am writing to provide my comments on the Juneau-Douglas Second Crossing following the Level 1 Screening Memo.

I firmly oppose the Mendenhall Peninsula option which was originally described in the draft memo as "fatally flawed" from a construction perspective. This option seems as though it would have the largest negative impact on our environment and our viewshed while simultaneously having the smallest positive impact on reducing traffic from the existing Juneau-Douglas crossing and smallest increase in emergency access.

As a resident of North Douglas as well as a healthcare worker I am highly concerned that a second crossing improves emergency access and this option does not. A more central option would significantly help with emergency access.

Perhaps the fatally flawed Mendenhall Peninsula option was reintroduced into the Level 1 group due to the potential for business development along the spine of the peninsula, however a more central crossing alternative that would meet current critical needs of Juneau residents, would not preclude future development of the spine of Mendenall Peninsula.

Additionally, this option is inconsistent with CBJ's Comprehensive Plan due to its impacts on a protected viewshed and does not maintain the visual, cultural, and scenic identity of our community.

Please consider removing the Mendenhall Peninsula crossing alternative from advancement.

Thank you for accepting my comments.

Gina Heffern

From: Carl Brodersen
To: Borough Assembly
Subject: Second crossing opinion
Date: Friday, March 3, 2023 10:12:45 AM
Attachments: image.png

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Dear Assembly Members,

Thanks for all your hard work!

Opinion:

I strongly prefer the Vanderbilt crossing option.
-Is a good balance between *preserving precious wetlands* and still providing travel time benefits.
-It could probably be built without eminent domain.
-Connects well with existing road infrastructure.
-Should reduce traffic on Douglas Highway by making Egan the best option for half of every trip.
-Doesn't destroy areas around mouth of the Mendenhall, some of the coolest parts of town.

Second choice: Twin Lakes (assuming Dougas lots can be purchased from Northstar Trekking).

The Douglas bench road is a cool concept, but it would cross a thousand creeks and open the City to endless lawsuits when concentrating that water through culverts inevitably floods homes.

Analysis:

Using google Earth, I measured the travel distances from centers of population (Out the Road, Valley, and Lemon Creek) to the start of the Eagle Crest Road and the Douglas Roundabout. I noted which drives are improved or worsened by more than a mile (a margin of error), or were not impacted (new distances are within a mile of the current distance).

	Current Route	Mend. Peninsula	mileage saving	N. Airport	mileage saving	E. Sunny Pt.	mileage saving	Vanderbilt	mileage saving	Twin Lakes	mileage saving	Salmon Creek	mileage saving	Eagle Creek	mileage saving
OTR to ECR	16.62	5.19	10.43	4.78	11.84	7.53	9.09	8.77	7.85	9.95	6.67	12.05	4.57	14.57	2.05
Valley to ECR	14.64	8.16	6.48	3.81	10.83	5.42	9.22	6.75	7.89	7.97	6.67	10.07	4.57	12.59	2.05
LC to ECR	11.73	11.93	0.2	7.52	4.21	3.85	7.88	3.8	7.93	4.9	6.83	7	4.73	9.52	2.21
OTR to DR	10.67	12.18	-1.51	10.77	-0.1	10.64	0.03	10.87	-0.2	10.73	0.06	10.73	-0.06	10.79	-0.12
Valley to DR	8.69	14.26	-5.57	9.8	-1.11	8.62	0.07	8.85	-0.16	8.71	-0.02	8.71	-0.02	8.77	-0.08
LC to DR	5.78	15.92	-10.14	13.51	-7.73	7.14	-1.36	5.94	-0.16	5.84	-0.06	5.84	-0.06	5.78	0
Total mileage savings (Using only improved [green] mileage)			16.91		26.88		26.19		23.67		20.17		13.87		6.31

All drives to the Douglas Roundabout (DR) were the same length under all options except the Mendenhall Peninsula Option, where they are substantially worse. All drives to the base of Eagle Crest's Fish Creek Road (ECR) were improved, except for again the Mendenhall Peninsula option, where they were the same.

The North Airport and East Sunny Point options have essentially the same benefit in distance reduction (~26.5 miles total improvement across all six driving distances for each of the options). Vanderbilt comes in just under 24 miles improvement and Twin Lakes at 20 miles.

The areas through which the Mendenhall Peninsula and North Airport options would cut are some of the most beautiful and precious in the City. These options should be abandoned for that reason alone, but also because their improvements in driving distance are inadequate or replicated by other routes.

E. Sunny Point should be abandoned because it would cut through a great deal of wetlands and is so close to better options; and let's be honest, Sunny Point can afford to tie it up in litigation for years.

That leaves Vanderbilt and Twin Lakes! They'd benefit driving times equally for all main northern population centers, and reduce Eaglecrest traffic on Douglas even from downtown. And when West Douglas is built, it will help

get that traffic off half of Douglas Highway, and reduce travel times the most evenly.

Thank you.
-Carl Brodersen

From: Allen Shattuck
To: Borough Assembly
Subject: Second crossing Preferred alternative
Date: Wednesday, May 17, 2023 4:46:42 PM

I strongly support the second crossing and my preferred alternative is the Sunny Point crossing. It provides the most convenience for Juneau citizens and the most expeditious route for emergency services.

Thanks--Allen Shattuck

[redacted]



Virus-free.www.avg.com

From: llolmb
To: Borough Assembly
Subject: Second Crossing
Date: Monday, January 30, 2023 4:17:22 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

January 29, 2023

Dear Mayor and Assembly Members,

The following are my concerns regarding the current attempt to establish a second crossing.

- To date there is still no community plan for North Douglas.

Collaboration is essential for a quality product. An outcome that meets more than, what appears to be, a developers and chamber of commerce agenda thinly veiled with traffic and emergency service concerns.

A thoughtful plan for North Douglas would include a long and short term plan for the larger Borough and reflect the needs for, housing, open space, access to water, transit, neighborhood visions, non-motorized paths, and recreation.

Climate change is a variable that must be included in all discussions. What will future needs be and what is sustainable?

- Nothing I have read or heard indicates a current population increase or any future exponential population growth. Quite the opposite.

The proposed crossing at the Mendenhall Wetlands is short sighted at best.

- Why is DOT determining community needs?

It would appear a proactive CBJ would have a North Douglas community plan in place prior to the current crossing proposals.

- Access to development for whom?

The proposed Pioneer Road development from what I have seen is for high end homes. What about development for local residents to own recreational cabins? A great opportunity for non-boating families.

Thank you.

Linda Blefgen
Auke Bay

From: Merry Ellefson / Wayne Carnes
To: Borough Assembly
Subject: Some questions beyond the Second Crossing
Date: Thursday, May 18, 2023 11:42:52 AM

Mayor Weldon and CBJ Assembly members,
Thanks for your time set aside to listen to the community on a topic which prompts us to look further than a crossing. I'm writing as a citizen (not representing North Douglas Neighborhood Association)

I've been thinking about how to study this idea differently and have questions re: the process and our CBJ.

1. If we study a decision-making matrix re: the crossing issue, i.e. when are decisions made, who is ultimately in charge of the footprint of our community? The state, CBJ, feds, all, how? How can the community better understand the next 2-4 years of what you perceive to be the crossing planning process?

2. I'm not so good at visioning 25-50 years ahead; are you? As we transform and continue to take care of the reasons that make Juneau home to many (tangible and intangible) who in the CBJ guides this long term planning, exactly… and if we are doing that, can we better understand this planning process? Coincidentally, I studied urban planning in Norway; it would be pretty helpful to send a delegate to places like Bergen, Trondheim, Lofoten and designated areas in between that do connect communities with bridges and the values or questions that guided these.

3. How do existing sub-area plans (e.g. Lemon Creek) or those yet to happen (North Douglas) fit into the process of discussing the second channing crossing?

4. I've lived on North Douglas (in a trailer for 8 years, now a home): I've learned through the PEL process that even DOT wouldn't design a residential highway like ours anymore. It's not a safe merging of vehicles and pedestrians. We don't even have a nonmotorized route to get our kids or ourselves to town. As you contemplate the crossing and community feedback, I encourage you to study transportation in our hood BEFORE a crossing happens. What is the plan to make North Douglas Highway safer re: for those who live and recreate here as traffic increases, that is, 75000 more tourists headed to EC for the gondola, and an increase in commercial tours at the boat launch, potential Fish Creek upgrades, etc. ?

Thank you for considering my questions.

Merry Ellefson

From:	Leah Heiman
To:	Borough Assembly
Cc:	michael heiman / EVAN's DAD
Subject:	Written Testimony for PEL study for North Crossing
Date:	Thursday, May 18, 2023 5:08:27 PM

To the Assembly,

I hope my written testimony will bear equal weight to those who come to speak in person. Public speaking is hard for me but I'm taking the time to put my thoughts in writing. I have previously written to the PEL study people about the use of my neighborhood, **Mendenhall Peninsula**, for a new bridge going to Douglas.

I have lived and cared for my home on MenPen Road since 2010 and hope to call it home for many years to come. My family regularly walks the road often picking up trash to take care of the neighborhood. My young son learned to ride his bike on this road and we still regularly bike here. I have had a heavy heart and anxiety every time I'm reminded of the threat of the neighborhood being drastically changed with the building of the bridge here on Mendenhall Peninsula.

I see in the recent documents that the Mendenhall Peninsula option supposedly has a "high" level of public support. I wonder if that support is from people who don't live here on the peninsula. I do live here and I am most definitely not in support. I fear the negative impact of several years of construction disruption and noise, widened roads and long-term increased traffic in our currently quiet neighborhood.

I have heard and seen maps alluding to three ideas of how to build the roads and bridge on Mendenhall Peninsula so I don't know if all of these options are still being considered or not.

1) I have seen maps that show the bridge connecting to the end of Mendenhall Peninsula Road. A north crossing at the end of "MenPen" road would greatly increase traffic on our narrow, no-outlet road. It would likely require widening the road taking property from homeowners along the road putting our houses closer to a wider, busier, faster moving road. No more walks or bike rides along the road. Highway noise rather than neighborhood sounds.

This option would also increase traffic on Engineer's Cutoff which is narrow and curvy. When Engineer's Cutoff is open as a pass-through to Fritz Cove during spring, summer and fall, traffic on Engineer's Cutoff increases quite a lot and it is more dangerous as more vehicles zip around the curves. I often worry for the pedestrians and bikers I see on the sides of that road. Widening Engineer's Cutoff Road to accommodate more traffic is a lousy option due to the negative impact on homes along Engineer's Cutoff.

2) I have also heard the idea of connecting to the end of Fritz Cove Road. Although Fritz Cove Road is already wider and might not need as many changes, I'm concerned using that road would increase traffic on Engineer's Cutoff as well.

3) I have also heard the idea of downing the forest over the top of the peninsula to build a road down the middle of the peninsula. I haven't seen a lot of specific details on how this would connect to Engineer's Cutoff where it crosses that road. But this option has potential to increase traffic on Engineer's Cutoff too and to disrupt both the neighborhoods on the whole

peninsula. In addition, I'm guessing this would negatively impact the wildlife populations on the peninsula. Deer and bear are regular backyard visitors in our area.

In summary, please consider WHERE the "high levels of support" are coming from with each of the options. If there is an option in which the neighborhoods that are impacted support the changes to their neighborhood, that is very different from developers or others looking for easier access to Eaglecrest for entertainment supporting an idea because they won't be negatively impacted and will only profit.

If a bridge is essential, I hope you can find a way to get the road/bridge that’s needed for emergency/safety purposes that is fiscally conservative to the community and doesn't negatively impact existing neighborhoods or destroy more of the wild beauty of this area in the name of further development and growth. Don’t “pave paradise and put up a parking lot” as the song goes.

Thanks for reading,
Leah Heiman
Mendenhall Peninsula Road resident

9. City and Borough of Juneau

DATE	ITEMS	PAGE
3/20/2023	Emergency Response Time Report	200
2/28/2025	Law Department letter	206

Reconsider Level 1 Step 1: Twin Lakes, Salmon Creek, Eagle Creek and Downtown do not meet proposed purpose and need. Twin Lakes and Salmon Creek should also be removed from Additional Goals Screening.

Sunny Point provides the most leverage in improved response times.

Emergency response times include medic response. Assuming getting medics to the victims improves outcomes, "Improved Emergency Response Times" and "Access to critical health care and emergency services" have the same constraint – how fast can medics get there?

When looking at the distance between stations, a point half way between the two is the point at which either one has an arrival advantage.

Manned stations that could come into play with the crossings include:

Station 1, Downtown: 820 Glacier Highway

Station 3: Glacier: 1700 Crest Avenue

Station 4: Auke Bay: 11900 Glacier Highway

Considering the half way point between stations, the crossings that improve response times are considered below. Also, I've asked GIS to tell me how many acres of CBJ land are to the northwest of the midpoint, then assumed 10% of that land would be developed with single-family homes on 14,000 square foot lots (conservative). The table below shows how many existing homes would see improved service, and provides an estimate on developed homes that would be serviced.

Alternative	Improved response existing homes	Acres of CBJ Land	# of dwellings 10% developed
Vanderbuilt	277	4556	1418
Sunny Point	291	4624	1439
North Airport	196	4061	1264
Mendenhall Peninsula	96	3202	996

Details are provided below.

Eagle Creek, Salmon Creek, and Twin Lakes crossings eliminated, with no improvement to response times.

Response times don't improve until half way between the existing stations. Downtown is the more efficient station until you get to that point.

Downtown to Glacier is 7.5 miles, 11 minutes

Middle of Twin Lakes is about half way.

Options east of this do not provide improved response.

Salmon Creek and Eagle Creek do not provide improved response. Twin Lakes provides redundant response.

Vanderbuilt improves response times for 277 existing homes.

Assuming a straight Vanderbuilt crossing landing at approximately 7850 North Douglas Highway, the distance between the Downtown Station and Glacier Station is approximately 8.7 miles (white line).

The half way point lands at 7480 Glacier Highway (star). Northeast of this area the Glacier Fire Station would provide a faster response time.

There are 277 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,556 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,417 additional homes.



Sunny Point improves response times for 291 existing homes.

Using the western access for the Sunny Point crossing, the distance between Glacier Station and Downtown is approximately 8.2 miles (white line).

The half way point lands at 7160 North Douglas Highway, approximately 1,500 feet east of the midpoint from Vanderbuilt.

There are 291 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4624 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,439 additional homes.



North Airport improves response time for 196 existing homes.

There is approximately 7.1 miles between Glacier Station and Auke Bay Station. Industrial Boulevard is approximately 0.2 miles from Glacier Station, so Glacier Station would provide the most efficient response time.

The mid point between Glacier Station and the Downtown Station is approximately 8687 North Douglas Highway.

There are 196 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,061 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,264 additional homes.



Mendenhall Peninsula improves response time for 96 homes.

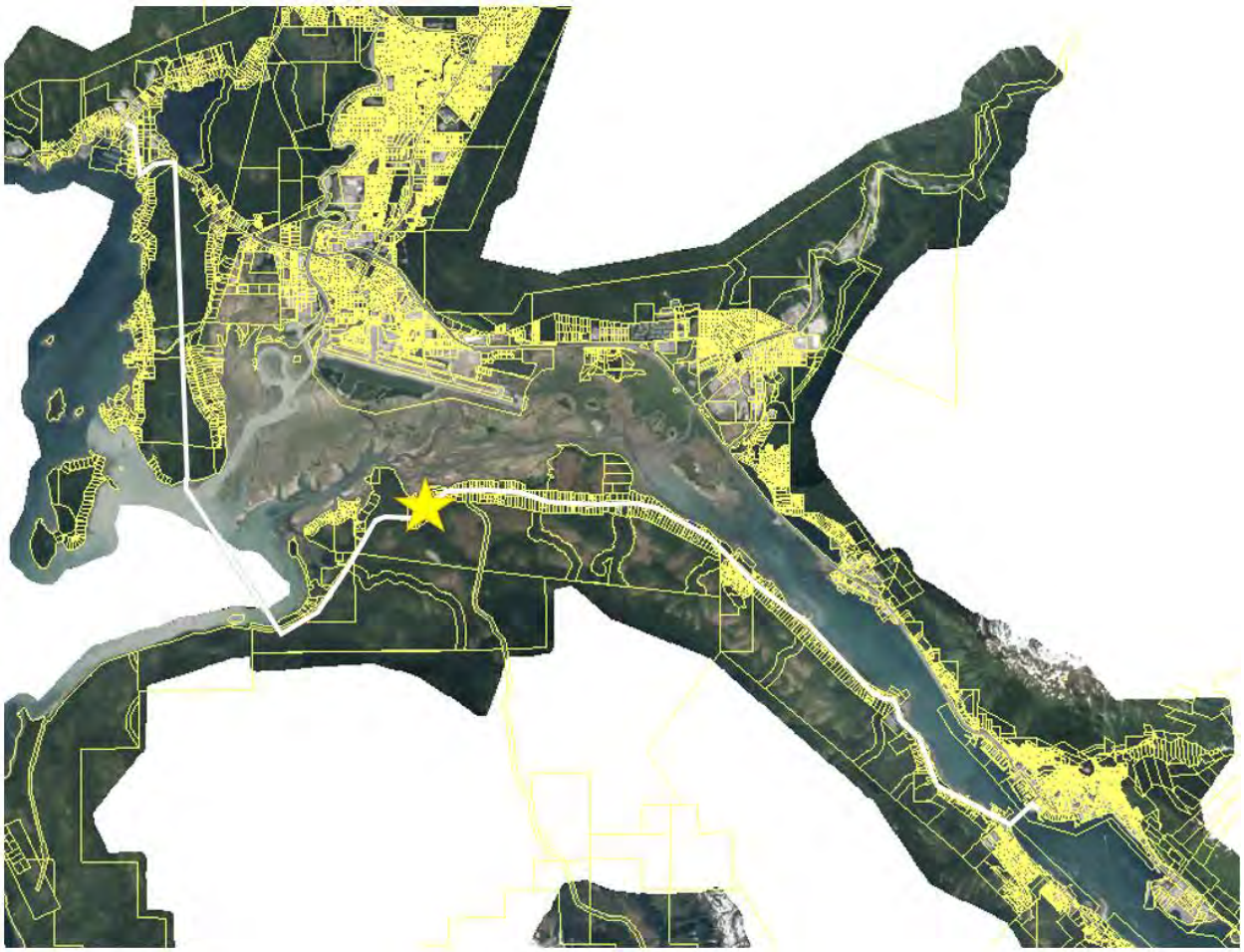
Auke Bay station is 0.75 miles the MenPen alternative intersection with Glacier Highway.

There is approximately 13.8 miles between the Auke Bay Station and the Downtown Station using the proposed MenPen alignment.

The midpoint is 10001 North Douglas Highway.

There are 96 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 3,202 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 996 additional homes. Unlike other alternatives, this option may open up residential land along the project alignment.



February 28, 2025

State of Alaska Department of Transportation
Attn: Christopher Goins

CC: Commissioner Ryan Anderson, DOT&PF
Commissioner Doug Vincent-Lang, ADF&G

RE: Second Crossing PEL, Public Comment By City and Borough of Juneau

To Whom It May Concern,

The City and Borough of Juneau (CBJ) has enjoyed a long partnership with the Alaska Department of Transportation and Public Facilities (DOT&PF) and the Alaska Department of Fish and Game (ADF&G) to study the Juneau Douglas North Crossing.

CBJ supports the development of a transportation corridor to connect Juneau with North Douglas. Juneau can no longer rely on a single bridge. As neighborhoods and other developments flourish, Juneau must safely and efficiently grow. As part of this process, CBJ is submitting this public comment, but must preface the below with a reiteration of our willingness and desire to work together to best serve the people of Juneau and protect the pristine environment in which we live.

Since the 1980's, CBJ and DOT&PF have worked closely to study the development of a second crossing, connecting Juneau to North Douglas. The geography of the area will likely necessitate the placement of a new bridge on or close to the Mendenhall Refuge. Knowing that the next steps will be a NEPA review, as part of the PEL process, we would like to bring to your attention a conflict between the Alaska Constitution, Alaska Statute Title 16, and the 1990 Mendenhall Wetlands State Game Refuge Management Plan.

The Mendenhall Refuge was created by statute in 1976. Alaska Statute 16.20.34 contains the establishing language, setting forth the refuge boundaries, management of the refuge, and permitted activities in the refuge. Subsection (i) provides directive language to Fish and Game for the development of a management plan. Specifically, it states:

> (i) The management plan adopted under (g) of this section must include provisions under which the City and Borough of Juneau may acquire land, by sale, exchange, or otherwise, for purposes of expanding the Juneau Municipal Airport, establishing additional transportation corridors, including water corridors, and establishing publicly owned and operated docking facilities, and these uses are considered preferential under art. VIII of the state constitution but subject to the requirements for plan specification and approval under AS 16.20.060. A deed, contract of sale, lease, or other instrument evidencing disposition by the Department of Natural Resources of land under this subsection must include, among other terms, the condition that the land is restricted to use for airport expansion, establishing additional transportation corridors, including water corridors, and establishing publicly owned and operated docking facilities.

While the overarching purpose of a state refuge is to protect land and resources for the public use, local governments are provided with preferential rights. Here, for example, CBJ has a preference for a transportation corridor. In reviewing other refuges, preferences are clearly and consistently found within statute. For example, a public right-of-way is included for transportation and utilities between Anchorage and Fire Island,[1] a transportation corridor is provided for in the Palmer Hay Flats,[2] several refuges include provisions for oil and gas exploration,[3] and Creamer's Field expressly provides for agricultural activity within the refuge.[4]

In 1990, the Department of Fish and Game created the Mendenhall Wetlands State Game Refuge Management Plan ("the Plan"). The stated purpose of the Plan is to "provide consistent long-range guidance to the Alaska Departments of Fish and Game and Natural Resources and other agencies involved in managing the refuge."[5] While the Plan is guidance only, it mandates that "Activities will be approved, conditioned or denied based on the direction provided in this plan as well as state laws and regulations."[6]

In reviewing the Plan as a whole, it does not make any allowance for governmental purposes, nor does it recognize the local government preferences set forth in the Alaska constitution and Alaska Statute Title 16.[7] With regards to a transportation corridor, the Plan notes:

> The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following has been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonable be met off-refuge, 2) that the use of refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to

[1] AS 16.20.031.
[2] AS 16.20.032
[3] AS 16.20.036 and 038.
[4] AS 16.20.039.
[5] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, page 1.
[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.
[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.

the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation.[8]

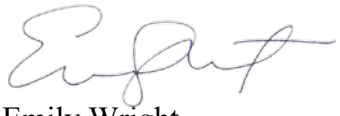
Similar constrictive and narrowing language is found under both the airport expansion and public docking facility sections.[9]

With regards to the Juneau North Douglas Crossing PEL Study, we encourage DOT&PF to adhere to the parameters of the Alaska constitution, Alaska Statute Title 16, and the guidance provided in the Plan as it closes out the PEL process and moves into the NEPA process. As this process moves forward, CBJ intends to submit a plan under 16.20.060, which will include mitigation details to protect the Refuge while preserving the transportation corridor.

As noted in the House Resource Committee minutes from January 30, 1976, the creation of the Mendenhall Wetland Refuge was done with the full knowledge and support of future development by CBJ, namely a second crossing, airport expansion, and a port facility.[10] These documents and the intent behind them must work together to meet the needs of the people of Juneau and Alaska.

We look forward to working with DOT&PF and ADF&G on this exciting and challenging project.

Sincerely,



Emily Wright
City Attorney
City and Borough of Juneau

[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.
[9] *Id.* Page 10.
[10] *See*, attached page 1.

10. Delta Waterfowl

From:	Morgan McCammon
To:	Christopher Hoon; PUB-JDNorthCrossing
Subject:	RE: [EXT] Juneau Douglas North Crossing Letter Delta Waterfowl
Date:	Thursday, January 18, 2024 10:36:39 AM
Attachments:	image001.png

Good morning, Chris,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study and sharing the Delta Waterfowl comment letter. Please visit the website at www.JDNorthCrossing.com for the latest information on the study and email any comments to JDNorthCrossing@dowl.com.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Christopher Hoon [redacted]>
Sent: Wednesday, January 17, 2024 9:07 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] Juneau Douglas North Crossing Letter Delta Waterfowl

Some people who received this message don't often get email from choon@deltawaterfowl.org. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello,

My name is Christopher Hoon I am submitting this letter regarding the Juneau Douglas Bridge North Crossing, on behalf of Delta Waterfowl.

Best,

Christopher Hoon
Manager of Government Affairs – Pacific Flyway
c: [redacted]
[redacted]

Delta Waterfowl
The Duck Hunters Organization™
DeltaWaterfowl.org

January 15, 2024

Department of Transportation & Public Facilities
[redacted]

Re: *Juneau Douglas North Crossing*

Dear Alaska Department of Transportation & Public Facilities,

I am writing to you today on behalf of Delta Waterfowl and our members, not only in the state of Alaska but across the Pacific Flyway to encourage you to protect The Mendenhall Wetlands. Delta Waterfowl recognizes the need for upgraded bridge infrastructure between Juneau and Douglas Island. However, our organization strongly recommends that proper precautions be implemented to minimize disruption to wetlands and waterfowl within The Mendenhall Wetlands. Delta Waterfowl strongly encourages this department to choose a route with the most minimal impact on wildlife, as well as hunters who utilize this area.

For reference, Delta Waterfowl is a leading conservation group founded at the famed Delta Marsh in Manitoba, with its United States Headquarters in Bismarck, North Dakota. We work to produce ducks through intensive management programs and conservation of breeding duck habitats. Delta conducts vital waterfowl research and promotes and protects the continuing tradition of waterfowl hunting in North America.

For over 40 years The Mendenhall Wetlands have been available for public access to sportsmen and women. These wetlands became a state game refuge in 1976 after a decade of engagement from local citizens. Juneau locals were determined to protect these wetlands due to the massive rate of change of this 4,000-acre ecosystem, caused by humans beginning in the 1930's. According to the Alaska Department of Fish and Game, these wetlands support 20,000 user days annually. This includes 2,000 hunter days specific to waterfowl hunting. Currently, only a small portion, about a quarter of the wetlands, can be hunted. This bridge has the potential to reduce the huntable area to even less depending on its final location.

These wetlands are the only easily accessible public waterfowl areas for residents of Juneau and the surrounding community. Although Alaska has some of the largest populations of waterfowl in the country, it also has low numbers of waterfowl hunters. losing this area that is important to both waterfowl and waterfowl hunters would be devastating to the residents of Juneau County and Alaskans as a whole. Moving forward, we encourage you to take every precaution necessary to protect The Mendenhall Wetlands and the wildlife within them.

Please feel free to reach out to me at choon@deltawaterfowl.org with any questions, comments, or feedback.

Delta Waterfowl Foundation | 1412 Basin Avenue | Bismarck, ND 58504 | 1-888-987-3695

Sincerely,

[redacted]



[redacted]

Christopher L. Hoon
Manager of Government Affairs – Pacific Flyway
Delta Waterfowl Foundation

Delta Waterfowl Foundation | 1412 Basin Avenue | Bismarck, ND 58504 | 1-888-987-3695

11. Department of Transportation & Public Facilities - Statewide Design & Engineering Services Division

From:	Daugherty, Leslie K (DOT)
To:	Heidemann, Marie E (DOT)
Cc:	PUB-JDNorthCrossing
Subject:	[EXT] Juneau North Douglas Crossing PEL
Date:	Wednesday, February 15, 2023 2:24:16 PM
Attachments:	1736_Juneau 2nd Crossing PEL 02152023.pdf

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Hello Marie,

Here are some thoughts we've had related to the 2nd crossing.

Please let us know what else we can do to help.

Thank you, Leslie

Department of Transportation & Public Facilities
Statewide Design & Engineering Services Division
Phone: 907-465-8891
Fax: 907-465-3124

MEMORANDUM

TO: Marie Heidemann
Planning Chief
Southcoast Region

DATE: February 15, 2023

FILE: 1736

FROM: Leslie K. Daugherty, PE, SE
Chief Bridge Engineer LKD

RE: Gastineau Channel Crossing

CONTACT: (907)465-8891
leslie.daugherty@alaska.gov

SUBJECT: Juneau Douglas North Crossing PEL Study

The Bridge Section does not take exception to the proposed purpose and need for this project. While much of the purpose and need statement falls outside our area of responsibility, we can provide support for the need to have system redundancy in the form of a second bridge to Douglas Island. If the existing Gastineau Channel Bridge would need to be closed due to an emergency or repairs, it is conceivable that service to Douglas Island could be compromised for an extended period of time. The number of barge strikes to the Gastineau Channel Bridge in the last few years has demonstrated the vulnerability of this single crossing and practicality of a second crossing.

A new bridge will have additional benefits by being designed to modern standards. Some examples include the capacity to carry heavier traffic loads, more reliable seismic performance, and improved pedestrian facilities with a taller pedestrian railing. In addition to vehicular and pedestrian traffic, the existing Gastineau Channel Bridge accommodates many utilities including water, sewer, electric and communications. The proposed bridge would be designed to accommodate current and future utility needs so that redundancy in services could also be provided.

We understand that this project is still in the planning stages, and we acknowledge that the area to be crossed is a valued resource for the community. At this early stage, we want to emphasize that there are Department policies and practices in place, as documented in the *Alaska Highway Preconstruction Manual* and *Alaska Bridges and Structures Manual,* that will need to be followed, regardless of where the future bridge is located. Not only are these standards necessary when accepting federal funding, they provide best practices for the design of safe and resilient structures.

As this project advances and stakeholder groups advocate for preferred options, we encourage you to ensure that all commitments related to engineering details (i.e., structural, hydraulic, geotechnical, traffic, etc.) be vetted by the Department's subject matter experts prior to being finalized in an environmental document. It is best to correct infeasible or non-practicable features at the front end of a project.

Examples of bridge engineering details that might arise during the PEL study and as channel-crossing concepts are developed are:

- Structure and substructure types
- Span length
- Substructure locations
- Drainage management details
- Scour and erosion countermeasure provisions

Let us know if we can provide any further assistance with the study.

12. Ducks Unlimited

From:	Morgan McCammon
To:	Matt Little; PUB-JDNorthCrossing
Cc:	Mark Petrie; Jeff McCreary
Subject:	RE: [EXT] Ducks Unlimited Comments
Date:	Tuesday, August 29, 2023 9:48:24 AM
Attachments:	image001.png

Good morning, Matt,

Thank you for providing these comments.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Matt Little <[redacted]>
Sent: Tuesday, August 29, 2023 9:42 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Cc: Mark Petrie <[redacted]>; Jeff McCreary [redacted]>
Subject: [EXT] Ducks Unlimited Comments

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WARNING: *External Sender - use caution when clicking links and opening attachments.*

Thank you for the opportunity to comment on the Juneau Douglas North Crossing PEL Study. Please confirm receipt.

Sincerely,
Matt

Matt Little
Director of DU Public Policy, Western Region
[redacted]
Vancouver, WA 98682
[redacted]
[redacted]

DUCKS UNLIMITED

Sign-up to become a #DuckPolicy Insider

Western Regional Office
3074 Gold Canal Drive
Rancho Cordova, CA 95670
www.ducks.org

Director Christopher Goins
Department of Transportation & Public Facilities
[redacted]

August 29, 2023

Re: Juneau Douglas North Crossing PEL Study comments submitted via *JDNorthCrossing@dowl.com*

Dear Director Goins,

Please accept these comments on behalf of Ducks Unlimited for the Juneau Douglas North Crossing PEL Study, a proposal to provide a second bridge crossing between Juneau and Douglas Island. The Level 1 Screening Report of March 2023 identified five alternative crossings for the proposed bridge. Four of these alternatives crossed the Mendenhall State Game Refuge, while the fifth alternative lies just outside of the Refuge's eastern boundary.

The 4,000-acre Mendenhall Refuge was established in 1976 and is located within the Gastineau channel. It was created, in part, due to public concerns over the ongoing loss of estuarine habitat in the channel. The purpose of the Refuge "is to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation" (1990 Refuge Final Management Plan). It has succeeded in both those goals as it supports thousands of waterfowl each spring and fall, and it provides over 2,000 waterfowl hunter-days each year.

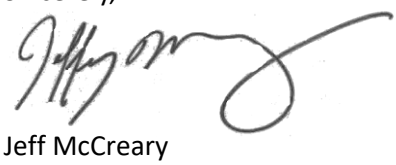
Providing accessible hunting opportunities near population centers like Juneau is important. Hunters contribute significantly to conservation funding in Alaska through license sales and excise taxes on the sale of firearms and ammunition, made possible by the Pittman Robertson Act of 1937. Through these funds, Alaska receives the majority of their funding for state wildlife management and conservation work. Importantly, the PEL Study Report recognizes that the Sunny Point alternative crosses the part of the refuge that is noted for the duck hunting opportunities it provides.

In addition to waterfowl, the Refuge supports over 200 species of birds. It also provides recreational opportunities outside of hunting including hiking, wildlife viewing and photography, boating, fishing and scientific and educational studies. Altogether, the refuge supports nearly 20,000 user-days to the citizens of Juneau.

One of the goals of the Mendenhall Refuge "is to minimize the loss of habitat due to fragmentation" (1990 Refuge Final Management Plan). Ducks Unlimited hopes the Department of Transportation and Public Facilities will consider a project alternative that meets that helps meet this goal and reduces the impacts on migratory birds and their habitats, while balancing the needs of the local community.

Thank you for the opportunity to comment and we look forward to reviewing future iterations of this important infrastructure project.

Sincerely,



Jeff McCreary
Director of Operations
[redacted]

13. Greater Juneau Chamber of Commerce

From:	Morgan McCammon
To:	Craig Dahl; PUB-JDNorthCrossing
Subject:	RE: [EXT] Juneau Chamber Objection to Salmon Creek Alternative
Date:	Wednesday, February 19, 2025 8:59:29 AM
Attachments:	image001.png image002.png image003.png image004.png

Good morning, Craig,

Thank you for providing comments from the Juneau Chamber. We appreciate your feedback and will include these in the final PEL study.

Best regards,

Morgan McCammon *(she/her)*
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Craig Dahl [redacted]>
Sent: Wednesday, February 12, 2025 2:08 PM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] Juneau Chamber Objection to Salmon Creek Alternative

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Craig E. Dahl
Government Affairis
[redacted]

www.juneauchamber.com

Greater Juneau Chamber of Commerce

[redacted]

Board Members

Benjamin Brown
President
Perseverance Theatre

Corey Baxter
President Elect
IUOE Local 302

Laura McDonnell
Past President
Caribou Crossings

Jodi Garza
Secretary
Alaska Seaplanes

Mark Mesdag
Treasurer
Elgee Rehfeld, LLC

John Blasco
Anchorage Distillery LLC

Ray Thibodeau
Alaska Marine Lines

Roger Calloway
Individual

Angie Nolan
Alaska Unlimited Realty

Sara Race
Gartner

Alec Mesdag
AEL&P

Rochelle Lindley
Coeur Alaska

Drew Green
CLAA

Aparna Palmer
University of AK-SE

Marc Guevarra
First National Bank Alaska

February 12, 2025

Greg Lockwood, Project Manager
Department of Transportation & Public Facilities
[redacted]

Re: Objection to Salmon Creek Alternative for North Crossing

Dear Mr. Lockwood,

The Greater Juneau Chamber of Commerce strongly opposes the inclusion of Salmon Creek as a viable Alternative for the Juneau Douglas North Crossing.

The closer any crossing is to downtown Juneau the less effective the crossing will be for the future development of North and West Douglas, access to Douglas Island by the largest population center of the community and the most detrimental to the residents living along the existing North Douglas Highway.

The PEL study does not project traffic demand from future residential and commercial development on North and West Douglas, but the location of the crossing is a critical component for future growth.

From a safety standpoint, a crossing at Salmon Creek ignores the importance of a reliable second crossing that provides emergency access to and from Douglas Island. While very unlikely, the failure of the Salmon Creek Dam and the resulting inundation – according to the models - would result in a crossing at this location being destroyed to one extent or another.

The Salmon Creek alternative would also require the acquisition of a significant amount of private property compared to alternatives that have access to CBJ land.

Respectfully,

Ben Brown, President

Maggie McMillan, Executive Director

cc: Beth Weldon, Mayor, City & Borough of Juneau
Katie Koester, City Manager, City & Borough of Juneau

3030 Vintage Blvd, Suite 200 Juneau, AK 99801 • [redacted]
E-mail:info@juneauchamber.com Web site: www.juneauchamber.com

14. Jim and Jackie Triplette

From: Morgan McCammon
To: Triplette Construction; PUB-JDNorthCrossing
Subject: RE: [EXT] 2nd Channel Crossing Comments and Preference
Date: Wednesday, December 7, 2022 9:32:18 AM

Good morning Mr. and Ms. Triplette,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We appreciate the historic comments on the previous efforts.

We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Triplette Construction [redacted]net>
Sent: Wednesday, December 7, 2022 9:15 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] 2nd Channel Crossing Comments and Preference

Some people who received this message don't often get email from [redacted]. Learn why this is important

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Attention: Marie Heidemann, DOT&PF Project Manager
Nina Keller, Assistant Project Manager
Irene Gallion, CBJ Liaison

Please see the above attachment for our 2nd Channel Crossing comments, preferred routes, pictures 1 – 4,

Notes from the Audubon Society Stakeholder meeting and the Sunny Point Neighborhood Association comments.

Thank you for your consideration of our concerns, comments and preferred routes for the 2nd Channel Crossing.

Jim & Jackie Triplette

2ND CHANNEL CROSSING

CROSSING COMMENTS

- ONE OF THE THINGS THAT SETS ALASKA'S CAPITAL, JUNEAU, APART FROM MOST OTHER CITIES IS THE SPECTACULAR VIEW OF THE MENDENHALL GAME REFUGE FROM THE AIRPORT TO SALMON CREEK. THIS VIEW PROVIDES AN INITIAL POSITIVE IMPRESSION TO VISITORS TO OUR CAPITAL CITY. CROSSING THE REFUGE WITH A ROAD BETWEEN THE AIRPORT AND SALMON CREEK IN THE REFUGE AREA WOULD DESTROY THAT EXPERIENCE UNIQUE TO JUNEAU.

- **[SEE ATTACHED PICTURE NUMBER 1.]** IT MAKES NO SENSE TO CROSS THE REFUSE AT THE WIDEST SPOTS. CROSSING THE REFUGE EAST OR WEST OF SUNNY POINT OR AT VANDERBUILT HILL WOULD DESTROY THIS IMPORTANT SENIC AREA.

- THE MENDENHALL GAME REFUGE IS CLASSIFIED AS A "GLOBALLY RECOGNIZED IMPORTANT BIRD AREA." SEE THE **MENDENHALL WETLANDS IMPORTANT BIRD AREA** BOOK BY ROBERT ARMSTRONG, RICHARD L. CARSTENSEN, MARY F. WILLSON AND HARGE HERMANS OSBORN. CROSSING THE REFUSE WILL GREATLY ENDANGER THIS.

- **[SEE PICTURES 2, 3, & 4]**, AND YOU WILL GET AN IDEA OF THE IMPORTANCE OF THIS AREA TO MIGRATING AND LOCAL BIRDS.

- LOOK AT **PICTURE 1** AND YOU CAN GET AN IDEA OF THE IMPORTANCE OF THE SUNNY POINT AREA AS THE MAJOR DEER CROSSING LOCATION BETWEEN DOUGLAS ISLAND AND THE MAINLAND. SEVERAL DEER HAVE THEIR YOUNG IN THE SOUTHERN AREA OF SUNNY POINT AND RETURN TO LEAVE THEIR YOUNG TO WINTER ON SUNNY POINT WHEN MATING SEASON BEGINS IN THE FALL. BUILDING THE CHANNEL CROSSING NEAR SUNNY POINT WOULD ELIMINATE THIS IMPORTANT WILD ANIMAL CROSSING, BIRTHING AND WINTERING AREA.

- CROSSING THE WILDLIFE REFUGE AT THE SUNNY POINT LOCATION WAS PUT TO THE VOTERS OF JUNEAU IN 2007 AND WAS DEFEATED BY A VERY LARGE MAJORITY. THE CROSSING DID NOT CARRY ANY OF THE JUNEAU OR DOUGLAS VOTING DISTRICTS AND LOST BY MORE THAN A 2 TO 1 MARGIN. THERE IS EVERY REASON TO BELIEVE AN ELECTION TODAY ON THIS LOCATION WOULD YIELD THE SAME RESULTS.

- **THE 2ND CHANNEL CROSSING SHOULD NOT OCCUR IN THE MENDENHALL GAME REFUGE BETWEEN THE AIRPORT AND SALMON CREEK.**

PREFERED ROUTE

- THE PREFERED ROUTE BY THE AUDUBON SOCIETY AND THE SUNNY POINT NEIGHBORHOOD ASSOCIATION IN 2007 WAS AT THE SALMON CREEK/CHANNEL DRIVE LOCATION, **OUTSIDE OF THE MENDENHALL GAME REFUGE.**

- ATTACHED FOR YOUR REVIEW ARE **"NOTES FROM STAKEHOLDER MEETINGS OF THE JUNEAU AUDUBON SOCIETY"** AND FROM **THE SUNNY POINT NEIGHBORHOOD ASSOCIATION** THAT WERE PRESENTED DURING THE FAILED 2007 ATTEMPT TO PERSUADE THE PUBLIC THAT CROSSING THE WILDLIFE REFUGE AT THE SUNNY POINT AREA WAS A GOOD IDEA. **THESE NOTES AND IDEAS VERY MUCH APPLY TODAY AS THEN.**

- THE SALMON CREEK/CHANNEL DRIVE CROSSING CAN BE CONSTRUCTED OUTSIDE OF THE MENDENHALL WETLANDS GAME REFUGE AND AS SUCH WOULD COMPLY WITH SECTION 4[f] OF THE DEPARTMENT OF TRANSPORTATION ACT OF 1966 AND THE MSGWR MANAGEMENT PLAN, WHICH STATES THAT A PUBLIC TRANSPORTATION CORRIDOR CAN BE CONSTRUCTED THROUGH THE REFUGE **ONLY** IF "THERE IS A SIGNIFICANT PUBLIC NEED FOR THE CORRIDOR WHICH CANNOT REASONABLY BE MET OFF-REFUGE." ["Reasonable" defined as "within the realm of common sense."]

- THE BENCH ROAD, WEST OF THE EXISTING BRIDGE ON DOUGLAS ISLAND IS CRITICAL TO PROVIDING EFFECTIVE ACCESS TO WEST DOUGLAS AND A SECOND CROSSING AND SHOULD BE PART OF THE PROJECT.

- IF THE MAIN INTENT OF THE CHANNEL CROSSING IS TO RELIEVE TRAFFIC PRESSURE ON THE EXISTING DOUGLAS BRIDGE FROM TRAFFIC COMING FROM DOUGLAS OR WEST JUNEAU, THEN THE BRIDGE AT SALMON CREEK MAKES THE MOST SENSE. THE BENCH ROAD WEST OF THE EXISTING BRIDGE MAKES THE SALMON CREEK BRIDGE THE BEST OPTION FOR ACCESS TO EAGLE CREST, AND THE BACK SIDE OF DOUGLAS ISLAND WHILE MINIMIZING ENDANGERING THE ENVIRONMENTALY FRAGILE WILDLIFE REFUGE.

- THE SALMON CREEK CROSSING CHOICE WITH THE BENCH ROAD PROVIDES DIRECT ACCESS TO JUNEAU'S HOSPITAL AND HEALTH CARE NEEDS. THIS LOCATION MINIMIZES IMPACTS TO THE ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE.

- A CROSSING LOCATION CLOSER TO SUNNY POINT WILL DISPLACE BIRDS THAT WILL MOVE TOWARD THE AIRPORT AND INCREASE HAZARDS TO AIRPLANE TRAVEL.

- THE CROSSING AT SALMON CREEK WILL BE THE SHORTEST AND LEAST EXPENSIVE CHOICE.

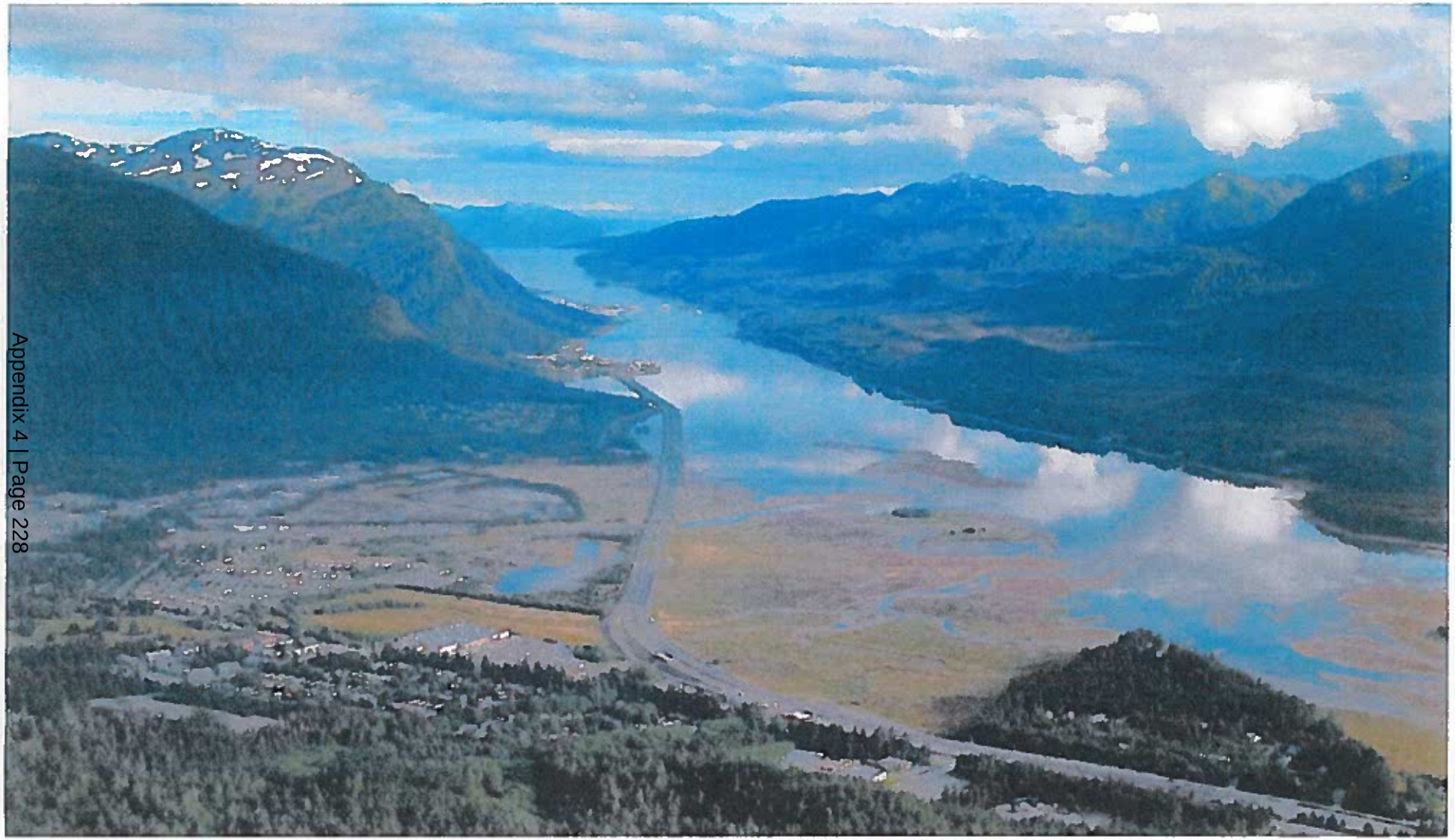
2ND CHOICE CROSSING

- IF THE OVERIDING CRITERIA IS TO PROVIDE A MORE DIRECT ROUTE FROM THE MENDENHALL VALLEY TO EAGLECREST AND TO THE BACK SIDE OF DOUGLAS ISLAND WITH LITTLE REGARD FOR THE ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE, THEN A CROSSING FROM DOUGLAS ISLAND TO INDUSTRIAL BOULEVARD WOULD BE THE SECOND CHOICE.

- THIS LOCATION WHILE FAR FROM IDEAL WOULD LEAVE INTACT THE SPECTACULAR VIEW AND ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE FROM THE AIRPORT TO JUNEAU.

- THIS LOCATION MIGHT NOT REQUIRE AN IMMEDIATE CONSTRUCTION OF THE BENCH ROAD BUT THIS NEEDS TO BE PLANNED FOR AND LAND ACQUISITIONS SHOULD BEGIN.

- IF A DEEPWATER PORT AND INDUSTRIAL USE OF THE BACK SIDE OF DOUGLAS ISLAND IS ENVISIONED, THEN WITH THE SUBSTANCIAL ADDITIONAL TRUCK TRAFFIC AND HEAVY INDUSTRIAL EQUIPMENT USE, THE INDUSTRIAL BOULEVARD LOCATION WOULD BE THE SECOND CHOICE. **THE BENCH ROAD AND THE SALMON CREEK ACCESS WITH THE OBVIOUS ENVIRONMENTAL AND VISUAL ADVANTAGE REMAIN THE FIRST AND MUCH PREFERRED CHOICE.**



PICTURE 1.

PICTURE 2.

PICTURE 3.

PICTURE 4.

Notes from Stakeholder Meetings

Audubon Society

- Route preference: Salmon Creek/Channel Drive. Object to crossings within the Mendenhall Wetlands State Game Refuge (MWSGR). The Salmon Creek alternative has following advantages:
  - Can be constructed outside of MWSGR; would comply with Section 4(f) of Department of Transportation Act of 1966.
  - Provides needed secondary access to hospital and for emergency services.
  - Least environmental impacts at this location (the identified "hot spot" is not a major environmental concern and construction of an all structure crossing would minimize impacts.)
  - Would relieve congestion on the existing bridge and address near-term needs for improved capacity of crossing(s) to Douglas Island.
  - All-structure crossing at this location affordable and feasible.
  - At Salmon Creek, could construct a tall enough bridge to meet navigability requirements without having to use a movable structure.
- Criteria to guide selection of route:
  - Do not cross within Refuge.
  - Minimize impacts to environmental values of Refuge.
  - Consider future development patterns, relative to cost and feasibility of providing city services and infrastructure (e.g., sewer, water). Don't encourage sprawl (e.g., development at West Douglas, which is distant from City center.)
- Must have a Needs Assessment that clearly shows the purpose and need for the crossing. Concern that the need is speculative (especially as it relates to future development at West Douglas.)
- Question maintenance and operation costs and feasibility for a movable structure. Vessels cross the Mendenhall Bar in numbers on the highest tide; would require bridge to be open and cause long delays in vehicle traffic.
- Sunny Point area (adjacent to the new interchange) is not listed as an environmental "hot spot," but it is. Shorebirds and geese congregate at this location. Consistent and frequent use by hunters. Commented that of the three routes (Vanderbilt, Sunny Point, Yandukin), the Sunny Point route would cross the most valuable environmental areas.
- Neither of the Yandukin Drive Corridors seems feasible, due to cost and potential impacts to the Airport.
- All alternatives (1-15) achieve the project's objectives to varying degrees. No alternative should be off the table at this point.
- Concern that if birds are displaced, for example at Sunny Point area, they will move toward the Airport area and increase hazard there.

Attendance:

Jeff Sauer, President
Mary Lou King
Matt Kirchhoff
Brenda Wright
Steve Zimmerman

Date: January 4, 2007

Sunny Point Neighborhood Association

- Route preference: Salmon Creek/Channel Drive. Must comply with Section 4(f) and with the MSGWR Management Plan, which requires that a public transportation corridor can be constructed through the Refuge only if "there is a significant public need for the corridor which cannot reasonably be met off-refuge." ("Reasonable" defined as "within the realm of common sense.")
- Criteria to guide selection of route:
  - Do not cross within Refuge.
  - Minimize impacts to environmental values of Refuge. Concern about impacts to birds and other wildlife, coho nursery areas in tideflats and other fisheries productivity, drainage, hunting, youth access, visual attributes.
  - Consider future development patterns, relative to cost and feasibility of providing city services and infrastructure (e.g., sewer, water). Don't encourage sprawl (e.g., development at West Douglas, which is distant from City center) that will increase public infrastructure costs and property tax burden to pay for them.
- If considering route farther west, should look at a tunnel option, regardless of cost. Tunnel option would reduce impacts to hunting, visual environment, and airport operations.
- MWSGR is extremely important environmentally, and also serves important role in providing urban hunting, open space, visual environment.
- Concern that the need is speculative (especially as it relates to future development at West Douglas.) For future community development, CBJ should be looking at areas that are more readily and less-expensively connected to public infrastructure and services, such as Goat Hill, bench lands in West Mendenhall Valley, bench lands in Lemon Creek Valley.
- Need to evaluate effects on potential coastal flooding, especially under storm surge conditions. (Consider using COE model of channel, used to model results of past dredging actions.)
- Bench Road is critical to providing effective access to West Douglas. The two projects should go hand-in-hand. North Douglas Highway and the associated neighborhood cannot safely accommodate the traffic increase that would come with significant new growth and industrial use of West Douglas.

Attendance:

Sherri Chrysler
James King
Jim King
Mary Lou King
Dale Lanegan
Frank Rue
Sally Rue

Date: December 6, 2006

15. Jim Dorn

From: Morgan McCammon
To: Jim Dorn; PUB-JDNorthCrossing
Subject: RE: [EXT] Juneau North Douglas Crossing
Date: Wednesday, March 22, 2023 2:56:34 PM

Good afternoon Mr. Dorn,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and crossing structure ideas with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Jim Dorn <[redacted]
Sent: Wednesday, March 22, 2023 10:26 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] Juneau North Douglas Crossing

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WARNING: *External Sender - use caution when clicking links and opening attachments.*

Greetings,

As you move into the next phase of the PEL Study I believe it is critically important to consider construction designs that will minimize the impact on wetlands, sediment transport, salmon transit and waterfowl habitat. For these reasons I believe it is important to consider an elevated roadway across the wetlands as opposed to an earthen fill structure. Please see the attached pdf for some photos showing possible ideas, some of which are located in Alaska.

Thanks,

Jim Dorn
[redacted]




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16. Juneau Audubon Society

DATE	ITEMS	PAGE
3/20/2023	Letter	241
9/20/2023	Email	243

Juneau Audubon Society
501 (C) (3) E IN 92- 0100446
P.O. Box 21725
Juneau, AK 99802
www.juneau-audubon-society.org

20 March 2023

DOWL
9085 Glacier Highway, Suite 102
Juneau, AK 99801

PEL Study Team:

Please find comments below regarding recent decisions and details related to the PEL Study transitioning to Phase 2 of the Juneau Douglas North Crossing ("second crossing"). Most of the comments were shared with DOWL during a meeting at their Juneau office on January 30, 2023. I summarize those comments, and have added new relevant information in this letter for the purpose of documentation.

1. General Positions
   - JAS is not offering an opinion on where or if a bridge should be built; rather, we seek to underscore the risks of significant disturbance within vital bird areas with a goal of preventing any construction in the Mendenhall Wetlands Complex.
   - JAS supports the inclusion of alternatives that do not enter tidal wetlands or nearby critical wildlife habitat.

2. Key Points
   - The Mendenhall Wetlands Important Bird Area provides vital stopover habitats that are limited within Southeast Alaska, most notably saltmarsh/grasslands and expansive glacial-fed tidal flats.
   - Fragmentation of wetlands (regardless of mitigation) diminishes habitat quality and reduces abundance and diversity of birds that inhabit or seasonally use habitats.

3. Threats/Risks
   - Construction degrades feeding and resting areas, especially for migratory shorebirds.
   - Air and habitat pollution from vehicle traffic (hydrocarbons, litter).
   - Light and noise pollution and disturbance.
   - Collisions (vehicles, bridge structural elements).

Thank you for the opportunity to offer comments.

Sincerely,

WPSmith

Winston P. Smith, Ph.D.
JAS Conservation Committee Chair

From: Morgan McCammon
To: Winston Smith; PUB-JDNorthCrossing
Subject: RE: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committees
Date: Monday, September 25, 2023 7:44:58 AM

Good morning, Winston,

Thank you for providing comments, these have been shared with the study team.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Winston Smith <[redacted]>
Sent: Wednesday, September 20, 2023 8:24 AM
To: Morgan McCammon [redacted]>
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committees

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan:
Thank you for the email and attached documents. My response today is on behalf of the Juneau Audubon Society.

As an experienced wildlife scientist who conducted field ecological research on birds and other wildlife for over 40 years, I am well aware of variability that exists and occurs seasonally and annually. The proposed fieldwork related to the second crossing are woefully inadequate and will simply provide a single, seasonal observation point without appropriate context or other necessary information regarding variety, abundance, frequency, or duration of use by birds and other wildlife species. At a minimum, fieldwork needs to be conducted throughout the year for multiple years, to be determined in part on the variation observed between the initial two years of the study.

SIncerely,
Winston

On Mon, Sep 18, 2023 at 11:07 AM Morgan McCammon [redacted]> wrote:

> Good afternoon, Juneau Douglas North Crossing Advisory Committee Members,
>
> Thank you for your continued participation in the Juneau Douglas North Crossing PEL Study Advisory Committees. We appreciate the feedback provided on the fieldwork plans and next steps. Please see the attached meeting presentation.
>
> Also attached are the fieldwork plans submitted to agencies with jurisdiction on September 8, 2023. The workplans are still under review with the agencies and are subject to change depending on

feedback received. We will be sharing information on the results of the fieldwork following reporting over the winter.

The next Advisory Committee meetings to discuss the draft Level 2 Screening results will be scheduled for late winter or early spring 2024, prior to the third and final public open house. Based on feedback received earlier this year, we plan to hold two meetings presenting the same information: one in-person and one virtual. We will invite members of both Advisory Committees to attend one or the other based on preference. While we plan on sharing screening results, we will provide ample time for group discussions.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

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17. Juneau Economic Development Council

JEDC
Juneau Economic
Development Council

612 West Willoughby Avenue
Juneau, AK 99801-1732
Phone: (907) 523-2300
Fax: (907) 463-3929
www.JEDC.org

March 7, 2025

Juneau Douglas North Crossing PEL Study Team
Alaska Department of Transportation and Public Facilities
PO Box 112500
3132 Channel Drive
Juneau, AK 99811-2500
Email: JDNorthCrossing@dowl.com

RE: JEDC Comments on Juneau Douglas North Crossing Project

Dear Juneau Douglas North Crossing PEL Study Team,

On behalf of the Board of Directors of the Juneau Economic Development Council (JEDC), I am writing to provide our comments on the Juneau Douglas North Crossing Project, which aims to connect Juneau with a more northerly point on Douglas Island. JEDC fosters a healthy and sustainable economic climate in Juneau and throughout Southeast Alaska. In collaboration with other organizations, we implement initiatives to maintain, expand, and create economic opportunities that help make Juneau a great (capital) city; strengthen key regional industries, promote entrepreneurship and small businesses, and develop talent. We appreciate the efforts of the Alaska Department of Transportation and Public Facilities (DOT&PF) and the City and Borough of Juneau (CBJ) in addressing the transportation needs of our community.

As a member of the Juneau Douglas North Crossing Stakeholder Advisory Committee, we appreciate the collaborative effort between DOT&PF and CBJ to explore the feasibility of building a second crossing/bridge. The importance of this project cannot be understated. Douglas Island is integral to the Juneau economic core providing commercial, residential, and recreational use. JEDC has long prioritized a second crossing as a key step for infrastructure development to facilitate economic growth of Juneau, including increased access developable land and coastline for future housing, recreation, and commercial development opportunities for current and new residents and businesses.

The JEDC Board of Directors expresses the following:

1. A crossing on the mainland closer to the population center of Juneau in the Mendenhall Valley better meets the purpose and need of the project from a transportation, energy efficiency, safety, and economic development perspective. Generally, the further north from the existing bridge, the better.
2. A landing on North Douglas that is closer to Eaglecrest and lands available for and targeted for development better meets the purpose and need of the project from a transportation, safety, energy efficiency, and economic development perspective. Generally, the further north from the existing bridge, the better.
3. JEDC encourages the timely completion of the Planning and Environmental Linkages (PEL) study so that our community can be closer to achieving a second crossing.

We support the project's goal of alleviating congestion during peak periods on the existing Douglas Island Bridge. The current bridge often experiences heavy traffic, and a second crossing would significantly improve traffic flow and reduce travel times for residents and visitors alike. Shorter distances for travelers will result in reduced fuel consumption.

We are concerned about the safety and emergency response implications of relying on a single bridge. In the event of a bridge closure or an event that blocks Egan/Glacier Highway, whether due to maintenance, accidents, or natural disasters, having an alternative route is crucial for ensuring the safety and well-being of our community, especially access to services at Bartlett Hospital.

Furthermore, an improved connection to Douglas Island should address the following needs:

- Alternate access and transportation infrastructure resilience
- Decreased traffic pressure on Douglas Island Bridge and its intersections

We believe that the potential for residential, commercial, industrial, and port development on the north and west of Douglas Island is an important consideration. A second crossing would facilitate these developments, contributing to the economic growth and prosperity of the region.

We appreciate the use of the PEL process to identify and evaluate the purpose and need for the project. It is necessary to also consider the environmental impacts and gather public input to ensure that the project aligns with our community's values and priorities. Thank you for doing that.

In conclusion, we strongly support the Juneau Douglas North Crossing Project. We want to reiterate our position that the alternatives that are further north from the existing bridge generally better meet the purpose and need of the project from a transportation, energy efficiency, safety, and economic development perspective. We urge DOT&PF and CBJ to continue moving forward with this important initiative. Thank you for considering our comments.

Sincerely,



Brian Holst
Executive Director
Juneau Economic Development Council

18. Keith Hermann

From: Morgan McCammon
To: Keith Hermann; PUB-JDNorthCrossing
Subject: RE: [EXT] Keith's Potential Crossing Idea
Date: Thursday, November 10, 2022 9:35:19 AM

Good morning Mr. Hermann,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and suggestion with the project team and added you to the project contact list.

We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center ([redacted] Come learn about the current progress, preliminary alternatives, and initial screening criteria.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Keith Hermann <[redacted]>
Sent: Wednesday, November 9, 2022 5:29 PM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] Keith's Potential Crossing Idea

> Some people who received this message don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

See attached for another crossing idea and commentary. Hoping you find this useful.
Thanks,
Ketih Hermann

Keith's Potential Crossing Idea

This is a proposed crossing idea for your consideration as part of the Juneau Douglas North Crossing PEL Study.

From my perspective, this has always been the obvious second crossing location choice. I saw a KINY News of the North story about CBJ reviewing crossing ideas. When I took a quick look, I was surprised that I did not see this route as one of the 20 or so proposals.

At the north end, connect to Glacier Highway at Berners Avenue, in the airport neighborhood. Route through the current CBJ owned AEL&P facility property (which can be easily relocated to the CBJ owned lots to the west and/or north). Continue west between the north side of Duck Creek and the lots on the south of La Perouse Avenue. Make a wide turn around the end of the airport runway approach without encroaching significantly into the Mendenhall River waterway. Move the runway 100 feet east if this makes it more feasible. Follow approximately along the Mendenhall Refuge Trail (EVAR Dike Trail) for about half a mile, then cut across the wetlands with a causeway. Provide a short, raised bridge over the navigable waterway, then take one of two possible routes to get to Douglas Island.

Option 1 is to make the southern end of the bridge connect to the peninsula west of Ninemile Creek and then proceed for about half a mile along that shoreline to connect with North Douglas Highway just west of 10075 North Douglas Highway (at the southeast corner of Parcel #: 6D1011000010).

Option 2 is to continue the causeway east after the bridge for about half a mile, then connect to North Douglas Highway at the Fish Creek Road intersection, through 9500 North Douglas Highway (Parcel #: 6D1101000100).

This route provides excellent connectivity between Mendenhall Valley and North Douglas and West Douglas, while minimizing wetland impacts. Option 1 requires little or no rights of way purchase, while option 2 utilizes a single privately owned parcel for right of way.

Ideally, a second crossing should be located as far away from the first crossing as possible to maximize utility, should provide a direct connection between Douglas Island and Mendenhall Valley, and should be as far west on Douglas Island as possible to minimize distances to future developments in West Douglas, while staying east of any deep water than makes construction prohibitively expensive. This means that any such route would have to be located near to the airport.

Your "Ideas for crossing locations we have heard so far" shows the following:

- 4 routes connecting to Mendenhall Peninsula. These all require either expensive long-span bridges, or two separate bridges to cross both the Mendenhall River and the Gastineau Channel. These options are too expensive for serious consideration.
- 3 routes connecting between Mendenhall Peninsula and Mendenhall River. These all require two separate bridges to cross both the Mendenhall River and the Gastineau Channel. While somewhat better, these are also too expensive for consideration.
- 3 routes connecting around (or under?) the east end of the airport property. These are clearly the best of the options you currently show (good connectivity and low construction costs, assuming no tunnels), but all have less connectivity and higher construction costs than my proposal.
- 3 routes connecting to the west side of Lemon Creek, at either Sunny Point Drive or the Walmart intersection. All three of these options seem to maximize wetlands impact with worse connectivity than the 3 to their west.
- 6 routes connecting between Vanderbilt Hill Road and downtown. These all provide such poor connectivity that there would be little or no benefit to building any of them.


Duck Creek
Mendenhall Valley
Mendenhall River
Johnson Creek
Johnson Creek
Johnson Creek

19. Laurie Craig

February 3, 2023

JUNEAU DOUGLAS SECOND CROSSING COMMENTS

Thank you for inviting the public to comment on plans to add another connection between Juneau's mainland and Douglas Island.

As a long time resident, I have followed the discussions about a second crossing for several years. My greatest familiarity with the affected area is from an almost daily walk on the Airport Dike Trail for the past 40 years. This trail is on airport property but fronts the Mendenhall Wetlands State Game Refuge.

Below are my key concerns to make a proper decision:

1) Avoid any causeway, bifurcation, or disturbance to the Mendenhall wetlands refuge.

Preserving the refuge wetlands' integrity is essential to the flow of tidal water and nutrient recharge for aquatic, avian, and marine life. Estuaries are the birthplace of life in this ecosystem. Do not construct any facilities that sever or disrupt contiguous refuge land.

Isostatic rebound at a rate of one-half inch per year has uplifted the wetlands since the last studies were conducted. The changes must be thoroughly documented and explained for each alternative proposed so the public and decision makers can understand how land rise patterns have changed.

Similarly, nothing should impede the free and rapid flow of the tide in Gastineau Channel. Therefore, the unimpeded flow of marine water cannot be unrestricted by fill or abutments. The recent 19- and 20-foot high tides are fresh reminders of the power of tidal movement. The tides rearranged huge floating or grounded, previously uprooted trees and moved them both upstream and downstream in Mendenhall River with incredible speed and power.

Climate change is an important factor in all proposals. The rate of glacial melting has increased significantly. A new phenomenon affecting the project area is frequent glacial outburst floods from Mendenhall Glacier. These began in the past ten years and occur with varying degrees of flooding several times each summer. The jokulhlaups began abruptly when Mendenhall thinned sufficiently that adjacent Suicide Basin was able to lift up Mendenhall with Basin meltwater and suddenly discharge millions of gallons of water into the lake, river and channel. The water pressure lifted Mendenhall and drained the basin contents beneath the glacial ice.

2) Any bridge must not interfere with aircraft transit zones.

Incoming jets use a special landing pattern in fog and low visibility with approaches from the east to Juneau International Airport. Do not place any infrastructure north/west of Twin Lakes that could interrupt safe flight routes. Be sure there is a large buffer of open airspace to allow a generous margin of error in navigation.

Other aircraft (commuter, charter, private planes) use a different approach pattern over Fritz Cove/Fish Creek/North Douglas to land on the runway and float pond. Do not build a bridge that would impair usage of that safe airspace. It is necessary to protect this access when flying conditions turn marginal, as often occurs.

3) Geophysical analysis must be performed for each alternative.

Because sediment has been deposited for thousands of years from Juneau Icefield glaciers, much of the shoreline is naturally filled with soft material, not bedrock which is needed for sturdy foundations for support structures.

Each potential crossing option must be evaluated for its stability and the depth at which any pilings need to be driven to construct a crossing on bedrock. This information will affect the cost of each option and must be discussed and considered.

4) Most viable options

My preference for a second crossing is a route minimally north/west of Salmon Creek which does not impact existing barge traffic, fish passage into the hatchery or Salmon Creek, or impede usage by orcas which annually swim up Gastineau Channel to that location.

I'd like to see the Twin Lakes connection studied thoroughly because it has the least effect the refuge, doesn't block incoming aircraft, and is shorter than some other choices. Allow only a bridge, not a causeway there. Length is likely to be less costly. Is there a location between the Salmon Creek and Twin Lakes that could resolve numerous concerns?

Impacts to Douglas residents are a major concern. A bench road must be evaluated for its potential to protect homeowners along the North Douglas Highway. A bench road must be properly sited and drained to not cause landslides, floods, or increased wind throw.

For economic growth and public safety, a second crossing would be valuable. I want to ensure the choice does not destroy the refuge, limit waterfowl hunters' access, create restrictions on aircraft, or negatively impact Douglas residents. It is a complicated project. Let's choose the best solution for all. In this situation, redundancy is good. We will benefit from a thoughtfully sited second crossing.

Sincerely,

Laurie Ferguson Craig
[redacted]

20. Mark Rorick

From: Morgan McCammon
To: Mark Rorick; PUB-JDNorthCrossing
Cc: Patricia Rorick; Mark Rorick
Subject: RE: [EXT] JD North Crossing
Date: Friday, February 3, 2023 2:26:15 PM

Good afternoon Mr. Rorick,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared this article with the project team and added you to the project contact list. Please send along any comments you would like the project team to consider. Please visit the website at www.JDNorthCrossing.com for the latest information on the study.

Best regards,

Morgan McCammon
Public Involvement Specialist
DOWL
[redacted]
-
dowl.com

-----Original Message-----
From: Mark Rorick <[redacted]
Sent: Friday, February 3, 2023 11:11 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Cc: Patricia Rorick <[redacted]>; Mark Rorick <[redacted]
Subject: [EXT] JD North Crossing

[Some people who received this message don't often get email from [redacted]. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

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Paying for Growth, Prospering from Development

by Michael J. Kinsley and L. Hunter Lovins

Residents of many growing towns and cities are learning the hard way that growth is not the solution to their economic woes. While they enjoy the benefits of growth, they also are vexed by the problems it causes: traffic congestion, crime, long commutes, air pollution, increasing intolerance, disrespect for traditional leadership, and increasingly cutthroat competition in local business. Rapid growth often causes higher rents, housing shortages, spiraling costs, and demands for higher wages to meet the higher cost of living.

Communities tolerate these side effects in hopes of capturing growth benefits. But some perceived benefits are illusory. For instance, most people believe that growth will give them an increased tax base that would relieve their tax burden and improve public services. But several studies have discovered the contrary. For example, a Vermont study found that towns with the most taxable commercial and industrial property have, on average, higher taxes.[1]

This paper addresses the difference between growth and development, the reasons communities seek growth, the ways in which local governments unwittingly worsen growth problems in their attempts to solve them, and how communities can develop viable local economies without growth.

Development does not equal growth

A sound economy requires *development*, that is, vigorous enterprise and a decent standard of living. But, it doesn't necessarily require *growth*, that is, expanded community size. A community might be compared to a human being. Human growth after maturity becomes cancer. When a town continues to grow after maturity, its cancer is manifest in many ways—higher taxes, environmental degradation, spiteful controversy, and loss of a sense of community.

But *development* is quite different from growth. After reaching physical maturity, humans continue to develop in many beneficial and interesting ways—learning new skills, discovering new interests and enterprises, and gaining deeper wisdom. Similarly, a community can develop itself without expanding. It can reduce costs, create jobs and affordable housing, enhance cultural and educational opportunities, and improve health and public safety.

Growth is an increase in size, while development is an increase in quality and diversity. Development increases the value of both public and private investments, while growth tends to require increases in these investments that may or may not increase value.

Some will argue correctly that growth puts people to work. But sustainable development (development that can endure for the foreseeable future) also offers jobs without the problems of growth. For instance, while construction of new buildings on open land (growth) puts people to work, it also requires expansion of public infrastructure and services that then leads to higher taxes. In contrast, enhancement and modernization of existing structures (development) employs people without necessarily requiring increases in public services. Sustainable development enhances existing assets, while growth requires expenditures to bring in additional capital assets.

This is not to say that growth is always wrong. Some communities need to expand if they are to become prosperous. Others, however, are realizing that growth will force them to confront difficult choices

Growth puts people to work, but sustainable development offers jobs without the problems of growth.

Why communities encourage growth

Four kinds of towns consciously seek new growth. They might be called Hungry, Rusty, Debtor, and Booster towns. These titles are simplified categories that illustrate the variety of factors driving growth in communities. In real communities, these factors are combined in various ways. But together they are the primary reasons



many communities find themselves trapped in a dynamic they don't understand, or know how to cope with.

Hungry towns want growth in order to save themselves from a stagnant or declining economy. Rusty towns seek growth to upgrade old, deteriorating infrastructure and substandard public services. Debtor towns are growing, maybe by choice or possibly by chance, and can't seem to keep up with expansions in infrastructure and public services required and demanded by, new residents. As costs rise, they look for still more growth to keep up with lagging revenues. Booster towns are riding a wave of prosperity. They feel and act as if the town will expand forever.

Many towns are so desperate that they'll take any growth, regardless of whether it is compatible with the community.

In many cases, growth can genuinely improve Hungry and Rusty towns, but only if carefully managed. Many are so desperate that they'll take anything, regardless of whether it is compatible with the community. They may then get a business that stays a few years, then moves on to the next town that offers a bigger tax break or more give-aways. This leaves the towns with waste and unemployment. Or, they may even get dirty industry that discourages clean, new business from coming to town and leaves an expensive mess for the community to clean up. Even if they avoid these problems, there remains the risk that they may be overwhelmed by success.

Debtor and Booster towns are in this situation. They are expanding and experiencing serious side effects. But no matter how bad the effects, there is always a small, active group pushing hard for more growth. These range from well-intentioned folk who wish to better the community, to people who believe that they will directly profit from growth, to manipulative outsiders who care nothing for the community.

Trapped by Growth

All towns need to manage carefully any new growth they may secure, or they will come to feel like Alice in Wonderland when she said, "The hurrier I go, the behinder I get." Their quality of life, often their primary salable product, declines. Their sources of income—for instance, clean businesses, retirees, and maybe tourists and second-home buyers—begin to look for the next unspoiled paradise.

Revenues from new growth are often insufficient to outweigh the costs of higher demand for such public services as schools, police, fire, roads, and sewers. As a result, existing taxpayers unknowingly subsidize much of the community expansion, especially the residential subdivision of unoccupied land.

This confuses and frustrates many citizens and local officials. For years they have been assured by growth boosters that the solution to a community's economic problems is to increase the tax base. The next big expansion project, say growth advocates, will produce enough tax revenue to fix local problems without raising taxes. Most of us accept these assertions. The claim that we can grow our way out of growth problems seems so reasonable that most of us don't think much about it. After all, we've always been told that growth is the basis of prosperity.

Researchers at the Sonoran Institute have compiled a startling array of examples of growth that did not fulfill its promise. One is the Vermont study mentioned earlier. Another from DuPage County, Illinois, found that "...new development, especially commercial and industrial, places burdens on public infrastructure and services that were not being paid for by the increased value of the land."[2] A review of over 700 studies of the impacts of growth on rural communities concluded that public sector financial gains were small or negative.[3]

A recent California study on sprawl was sponsored by an unusual alliance. The Bank of America, a state agency, a conservation group, and a low-income housing group came together to say, "...unchecked sprawl has shifted from an engine of California's growth to a force that now threatens to inhibit growth and degrade the quality of life."[4]

A recent Minnesota study of three communities found that when agricultural land was subdivided, it cost the local government more to provide the newly required services than the newly generated tax revenues paid. More surprising, though, was the finding that, used for farming, the land generates twice as much local tax revenue as it demands back in public services.[5]

Some communities are astonished to learn that stopping expansion can be cheaper than accommodating it. For example, buying land for open space can be cheaper than supporting its subdivision. Boulder, Colorado found that the public cost of maintaining developed land was

$2,500 to $3,200 per acre per year, while the cost of maintaining the same land as open space was $75 per acre per year.[6] Leaders in Huntsville, Alabama found similar costs.[7]

Even growth advocates are getting burned by growth. For instance, residents of Cripple Creek, Colorado, spent a lot of personal time and money to bring gambling—the current economic development fad—to their town. Their success quickly led to dismay as the growth effects of gambling dramatically increased their taxes. State Representative Bob Shoemaker said, "One guy I know...had his taxes go from $5,000 annually before gambling, to $500,000 annually now." Though gambling brought substantial new revenues, it required expensive new infrastructure that was paid for by all property owners. Now many established businesses can't afford tap fees for new water lines. They're using garden hoses run down alleys from the new casinos.[8] Some residents may be compelled by increasing costs to leave their own community.

This is not to say that growth will always cost local government more than the revenues it generates. Slow growth can be accommodated and can result in a net benefit. But assuming that expansion will provide a net gain to local tax coffers is fiscally irresponsible. Residential growth is usually a loser in terms of public revenues. Commercial and industrial expansion can provide net gains, but often does not.

A community that does not scrutinize every significant proposal for new growth is gambling its future as surely as would a trip to Las Vegas with the municipal treasury. We can no longer heedlessly assume that any expansion will strengthen the community's economy.

Though evidence is mounting that communities simply cannot cope with too much growth, how much is too much? What's the threshold between tolerable and intolerable growth? There are so many variables and differences among communities that it's hard to say. However, a conservative estimate is that the threshold rate is less than 2.5%. This percentage seems too low until it's translated into "doubling time." For example, if your community grows at 3% a year, it doubles in size in only 23 years. If the population at your birth was 5,000, it would balloon to 35,000 by the time you retired. Even at only 1% annual growth, the population would have nearly doubled.[9]

Why Isn't More Always Better?

Local government generally bills the cost of new services and infrastructure expansions on an average basis, rather than an incremental basis. That is, new costs are spread evenly among all taxpayers rather than only charged to those who create the costs. This is, in effect, a subsidy from the whole community to the developers. Old-timers who were sufficiently served by the old, inexpensive infrastructure find themselves paying a share of costly new infrastructure required to meet the expanded demands of newcomers.

According to the Bank of America study, "Continued sprawl may seem inexpensive for a new homebuyer or a growing business on the suburban fringe, but the ultimate cost—to those homeowners, to the government, and to society at large—is potentially crippling. "[10]

Growth subsidies are highest where local government allows or encourages the sprawl of urban expansion into rural areas. The costs of extending public services to serve rural, residential subdivisions are disproportionately high, while taxes on rural subdivisions are relatively low. Therefore, the effective subsidy to developers is larger when growth takes place further from existing public services.[11] This phenomenon also holds true for such commercial expansion as superstores that locate outside of municipal boundaries.

A town's willingness to accept these growth subsidies skews the real estate market by making all expansion, especially in rural areas, appear cheaper than it will, over time, actually be. This in turn, encourages the movement to rural areas of people who will then demand urban services.

A prime example of the costs of urban sprawl is Loudoun County, Virginia, near Washington DC. As the county boomed in the 1980s, tax revenues soared. But when the growth rate declined, the local government got into deep trouble. "The average family in the county receives about $5,800 in services each year,...But the household's tax payment is only $1,280—less than a quarter of the cost of services. In the 1980's tax payments from developers covered the gap. But with growth ground to a halt, the shortfall has become a yawning menace,...[the County] became hooked on steadily rising revenue; and now...they are suffering the sharp pangs of withdrawal."[12]

A town's willingness to accept growth subsidies skews the real estate market by making all expansion appear cheaper than it will actually be.

Loudoun County's plight is not unusual. Many local government officials believe the only way out of the burden imposed by prior growth is to encourage new growth. They are trapped in this contradiction by the mental model that tells them they must grow to prosper. Once local governments begin to encourage expansion to pay the depreciation costs of today's capital assets (buildings, roads, etc.), they are hooked on growth. There's no one to pay for the new infrastructure demanded by the new growth without yet another round of expansion that, in turn, will also fail to pay for itself.

Part of the problem is that cities and counties seldom budget for capital asset replacement until replacement is required. In contrast, for instance, most condominium associations (which are, in effect, small, special-service governments) anticipate the replacement of, say roofs, by setting aside a little each year. They, then have a nest egg to use when a new roof is needed. Condo associations know they won't get bigger, so they don't hope that new dues-payers will cough up the price of paving when the parking lot disintegrates.

Impact and user fees help, but they often charge only part of full-system costs.

If a local government acted like a condo association, it would calculate the full annual rate of deterioration of all capital facilities and bank the replacement costs each year as facilities wear out. Current taxpayers would then be paying for what they are really using. Since virtually no local governments budget this way, they are effectively maintaining budget deficits.[13] Though state laws generally require local governments to balance their budgets, they don't regard capital asset deterioration as contributing to deficit.

Even Hungry and Rusty towns will need to replace their infrastructure someday. But very few towns budget ahead of time for replacement. Instead, as bridges rust, potholes proliferate, schools deteriorate, and water lines fail, they seek ways to pay these unanticipated costs. They generally seek growth.

When they find it, unless they manage it carefully, they will then face the fiscal problems experienced by Debtor and Booster towns. Their infrastructure will continue to deteriorate because they will still have not budgeted for its replacement. But now they will have a new problem: how to pay for the additional public services now required by the new growth. They will attempt to pay these costs through property taxes levied on all property, old and new. This will raise taxes on long-time residents, most of whom experienced little or no monetary benefit from the community expansion. Then, because they don't understand the economics of growth, they too will begin to call for more growth, thinking it will relieve their tax burden.

Because most local governments effectively maintain these deficits by not budgeting for replacement costs, when growth slows even a little, they suffer the sort of fiscal crisis experienced by Loudoun County. Public assets deteriorate: for instance, roads unravel, increasing operation costs (patching crews) and external costs (everyone's tires and shocks). Blindsided elected officials attempt to treat these symptoms by reluctantly asking the electorate for higher taxes. But, unaware of the root causes of these symptoms, the voters believe that government is just inefficient and deny the tax increases. And, in a way, they're right.

An efficient local government would require that revenue from new growth be sufficient to pay for all public service and capital facility expansion demanded by the new growth, plus the wear and tear that the expansion imposes on existing infrastructure. It also would budget now for scheduled replacements. Depending on circumstances, it also would include increased costs due to congestion and sprawl. If this policy discourages home purchase by young families, then, rather than unwittingly subsidize land developers, a community can use the same money to subsidize those families explicitly, enabling them to buy homes in locations compatible with community goals. Such a policy would not expand the role of government, rather it would make government accountable by clearly identifying what is and what is not being paid for.

Some argue that impact and user fees already compel growth to pay its own way. Though they help, as currently implemented, they often charge only part of full-system costs. They often include average operations and maintenance costs but seldom reflect the higher cost of supplying distant locations or capital asset replacement costs. [14]

Though they may not be fully aware of the extent of the deficits created by growth, officials in many Booster towns now realize that growth

doesn't pay its way. So they begin to request certain impact fees. For instance, they'll request fees for extending sewer and water lines to a proposed subdivision. The subdivider squeals, "government interference," and may even threaten to sue. Wary of government action and lawsuits, many locals agree. If the subdivider eventually accedes to the request, officials feel relieved. They think they've done their duty despite tough objections. Yes, they've made progress. Given the lack of public awareness of these fiscal issues, they've probably done as much as the voters will tolerate. But most likely they've also ignored the incremental cost of expanding the sewer and water plants caused by the subdivision. They've also neglected to cover the additional costs that will be needed to provide schools, roads, police, and fire protection, etc., for the new subdivision. Despite their efforts, the officials have created a long-term deficit that local taxpayers will eventually have to pay.

Many special districts, such as fire and sewer, are in an even worse position. Though affected by growth, they are not allowed to assess impact fees on developers.

Adding to fiscal problems, a serious equity issue has arisen in many growing communities, especially in the rural towns to which urbanites are fleeing. The incomes of new home buyers are often substantially higher than those of existing homeowners. When the cost of new infrastructure for the newcomers is paid by all taxpayers, the effect is a subsidy for relatively rich newcomers paid by less wealthy, long-term residents. The newcomers often demand higher levels of public services than had previously existed. Worse, the prices of land, rent, and private services increase because newcomers can afford more. This increases the cost of living and often forcing long-term residents to leave.

A market economy is efficient in allocating resources only when costs are reflected in prices. But when local governments inadvertently hide the costs of expansion, they skew the market and cause inefficient and expensive allocation of resources. Disconnecting costs from benefits, they unwittingly create socialized growth.

A Community Divided

Some community residents want growth because they benefit from it, others because they're desperate. These people all work hard to perpetuate the community's belief that it cannot survive without expanding. The community shouldn't wonder that some people promote growth. The rules of the game give them the benefits, while imposing on the community a large portion of the public costs.

Despite the persuasion of growth advocates, some communities attempt to manage growth. The process is repeated in community after community. Local government begins to confront growth problems. Citizens organize on both sides of the issue. Tougher and more complex problems emerge more frequently. Discussions about solutions become acrimonious. Community divisions deepen and widen as cooler heads withdraw in frustration to the sidelines. Many residents, opposed to any change, don't want growth but neither do they want the local government to control growth. By opposing growth control measures, however, they allow more expansion. This, in turn, forces higher taxes, which these same residents oppose saying it's all the government's fault.

Disconnecting costs from benefits, local governments unwittingly create socialized growth.

Fear of change often leads to haphazard change instead of change that can be made compatible with the community. For instance, local government allows growth to sprawl into the countryside, while voters deny school bonds meant to preserve high-quality education in the face of the influx of new students who live in the sprawl. The unintended and confusing result is change no one wants: declining quality of education, urbanization of farms, and a deteriorating sense of community.Public decision-making in growing communities often degenerates to political name-calling. For instance, growth opponents often call all growth advocates "greedy," when in many cases they are just people seeking a decent future for themselves and their children.

The other side is no better. When local elected officials discuss measures to manage expansion, growth advocates often say the officials are just interventionist liberals trying to interfere with business. This pigeon-holing of efforts to face growth issues contribute nothing to the struggle to solve local problems. Worse, they belie basic tenants of conservative political philosophy. For instance, the Republican Party's new Contract With America calls for Congress "...to live under the same budget constraints as families and busi-

nesses."[15] If local government were held to the same standard, it could not continue to accommodate growth with deficit budgeting.

Sometimes local debate gets so nasty that growth advocates call growth management advocates socialists. But, as discussed above, accommodating expansion without charging costs to actual beneficiaries is the real form of socialism. Local communities would be well served if each side of the growth debate stopped demonizing the other and focused on finding solutions that equitably serve the community. It is also important that communities realize that they need not sacrifice prosperity if they choose to slow growth.

Alternatives

There are plenty of ways to develop an economy without growth.

There are plenty of ways to develop an economy without growth. For instance, import replacement is a powerful means that is little used. It means producing locally what had previously been purchased from outside the community. Two excellent ways to reduce imports are supporting existing businesses and plugging the unnecessary leakage of dollars and resources from the community. These efficiency measures increase the number of times a dollar is spent in the community, thereby increasing local wealth with the same volume of exports. These measures are particularly powerful when applied to the basic necessities of energy, food, water, and housing. A town that becomes more efficient in providing the basic necessities and produces many of its necessities, locally, is far stronger and more economically resilient.

Osage, Iowa, discovered a way to develop its economy without growing. The community plugged its energy leaks and is now saving nearly $1,000 per family per year. Money that had been spent out of town to buy gas and electricity has become, in effect, tax-free income. A total of $1.2 million now stays in Osage each year. Much of it recirculates in the economy—strengthening local businesses without growth in community size. One local industry reduced costs 29%, all of which went to the bottom line or to plant improvements to create more jobs (i.e. development). Moreover, the program put local people to work plugging energy leaks (insulating, caulking, installing new lighting etc.). Osage's simple program is so dramatic that it has repeatedly made nationwide news.

What happens when you try something like Osage in a big city? Big savings! Southern California Edison developed an efficiency program that saves three billion dollars each year that otherwise would have been spent on new electricity supply. The cost of the utility's entire energy saving program was about one percent of the cost of a new power plant.

Researchers for Rocky Mountain Institute have found scores of examples of communities that curtailed leaks in their local economies. By becoming more efficient, they've improved the bottom line by plugging leaks in the local economy.

Support of existing businesses is another way to develop without growing. A businesswoman in Eugene, Oregon, did just that when she started a program linking local suppliers with local buyers. In its first year, "Oregon Marketplace" generated $2.5 million in new local contracts and 100 new jobs—just by identifying the items purchased out-of-state that could be obtained locally.

The Eugene program didn't require expansion in the scale of the community. Rather, it created more wealth by using existing resources more effectively. Like Osage, it caused locals' dollars to be re-spent more often. Each dollar re-spent within the community provides all the benefits of a new dollar from the outside, without the negative side-effects of growth.

This is not to say that every town should seek to be entirely self-sufficient. Much of our quality of life comes from access to imported items, whether they be Florida oranges, or French perfume. But much of what we need can be better provided locally. Few of us care whether the comfort in our homes comes from burning Arabian oil or better insulating the roof. We should care, however, that the latter is cheaper, provides local jobs, and is more dependable.

Sustainable Community Development

Osage, Eugene, and Southern California Edison are examples of sustainable development. In contrast to growth, sustainable development integrates long-term community, environmental, and economic goals. Based on reinvestment in our economy, it is a potent new approach to economic development that includes three important aspects: renewability, equity, and digestibility.

A sustainable economy is renewable in that it uses resources no faster than they can be replen-

ished. For instance, logging towns will become ghost towns if they cut their timber faster than it grows back. Agricultural towns will ease themselves out of business if their production level removes more nutrients from the soil than are replaced. Retirement and resort towns whose expansion results in urban pollution and congestion will grow themselves out of their source of tourist dollars.

The natural resources of these communities—timber, soil, and quality of life—are their capital assets. The problem is that some communities are using their capital assets as if they were income—which is like dairy farmers' selling their cows to buy feed. Soon there will be no cows to feed. When we deplete our resources, we're treating our community as if it's a business in liquidation. We spend the income, then bequeath the mess to our children.

That's where the second aspect of sustainable development comes in: equity among generations. If a local economy is based on the depletion of an important local asset, for instance soil nutrients, then future generations will not be able to make a living in the same way. Unsustainable expansion defers costs to be paid later, creating an uncertain or diminished future for our children.

Equity among different people is also part of sustainable development. If the location of a hazardous materials dump makes the neighbors sick, then that particular expansion is inequitable. The neighbors are paying some of the costs of the dump without receiving benefits.

The "digestible" aspect of sustainable development is the recognition that development is not a straight line from harvest or extraction through production to consumption to disposal, but a circle that eliminates the disposal step and returns by-products of production and consumption to the system. When by-products are dumped at the end of the straight line, they are regarded as waste (which hinders development by imposing ever-increasing costs). In contrast, when by-products are reused, recycled, or biodegraded, they become resources—capital to sustain the development cycle.

The "straight-line" perspective on development leaves out the environment; the cyclical view includes it. Though environmental concerns were once seen as narrowly focused on trees and little furry creatures, they are essential for long-term economic health.

The Next Step to Sustainable Development

Successful communities are those that accept neither unquestioned growth nor the inevitability of decline. They seek a middle path by moving aggressively on two fronts. First, they proactively seek sustainable projects to develop their local economy, such as the work done by Osage, Iowa.

Second, they seek more sophisticated ways to deal with the growth proposals they face. Many towns are already evaluating expansion proposals to determine if they are fiscally responsible, environmentally sound, and compatible with the local community. Though these concerns are important, they tend to focus primarily on the short term. Effective criteria include an examination of the sustainability of growth proposals.

Successful communities are those that accept neither unquestioned growth nor the inevitability of decline.

Though some proposals for expansions are clearly unsustainable, determination of what is sustainable is difficult. However, to avoid the grief of unintended or unforeseen consequences, it's worth asking the following questions before mistakes are made. Would the proposal:

- use local resources faster than they can be replenished or replaced?
- impose disproportionate costs on those who receive little or no benefit?
- be one in the series of town expansions that together would lead to an unsustainable future?
- produce products and by-products that are reusable, recyclable, or biodegradable? (Not only does a yes answer indicate a way to reduce pollution; it also indicates the potential for more job creation through, for instance, processing of wastes into valuable by products, or redesigning the process to eliminate waste altogether.)

Conclusion

This paper shows that, while growth was once seen as the only track to prosperity, the evidence should turn thoughtful citizens to the path of sustainable development. It offers alternatives to common assumptions about growth and development. It is, however, only a brief introduction. The challenges it discusses are sufficiently complex to justify entire chapters, each ripe with examples and exceptions. The questions it raises have no easy answers.

The drama being played out in overgrown

communities—the controversy, the social and environmental side-effects of growth—is not isolated to a few places. It's playing in communities across the planet as the global economy touches each individual's life, as the population swells, as cheap resources become scarcer, and as formerly free places to dump our waste become increasingly expensive. The global perspective makes it clear that, if our development strategies are not sustainable, they will be terminal.

But within this crisis are substantial opportunities and solid reasons for hope. Increasing numbers of citizens in overgrown communities are unwilling to drown passively in someone else's prosperity. Committed people are speaking out for humane and sustainable development, the kind of economic activity on which future generations can thrive. Increasingly, they find that others are listening.

Before working with the Economic Renewal Program at Rocky Mountain Institute, Michael J. Kinsley served as an elected official in a rapidly growing community. L. Hunter Lovins is the President of RMI and co-creator of its Economic Renewal Program. RMI welcomes comments on this paper.

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21. Mendenhall Wetlands Study Group

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2. Mendenhall Wetlands - Book
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Audubon Report

Important Bird Areas

Mendenhall Wetlands

Alaska

The Mendenhall Wetlands complex has the third greatest acreage of vegetated tidal salt marsh of all estuaries in Southeast Alaska. It is widely acknowledged to be one of the key migratory waterfowl and shorebird stopover locations of coastal Alaska. This 1,820 hectare area is bordered by coniferous forest and open salt water. It includes supratidal meadows, a high salt marsh dominated by grasses and a low salt marsh dominated by Lyngbye sedge. Within the salt marsh are mud and sand flats with numerous intertidal channels. One major river (Mendenhall) bisects the area and 14 freshwater streams flow into the wetlands. All of these rivers and streams support Pacific salmon and other fish which contribute to the richness of the area. The area also contains several freshwater and brackish ponds.

Ornithological Summary

A total of 230 species of birds has been documented to occur on the Mendenhall Wetlands, as of January, 2002 (Armstrong & Gordon 2002). This represents 77% of the 300 bird species seen for the entire Juneau Area - from Taku Inlet to Berners Bay (van

Vliet et al. 2003), and 69% of the 335 bird species seen for all of Southeast Alaska ? between Dixon Entrance and Yakutat (Armstrong and Gordon 2001).

The Mendenhall Wetlands are of outstanding value to waterbirds, as well as certain grassland and wet-meadow songbirds and raptors. It is used significantly both for resting, and foraging for food, most notably in the network of brackish sloughs. Throughout early spring and early fall, many species of ducks, notably including dabbling ducks, and many taxa of geese, favor the area. From about April 26 through May 23, a large number of shorebirds pass through. The southward shorebird migration is much longer and less regular, lasting from late June to early October. At that season, except for unpredictable brief big flights, the birds are spread widely amidst the tall grasses and sedges, thus being usually much less observable than in the spring.

We have observed 36 species of waterfowl, plus 2 distinctive subspecies (Aleutian Cackling Goose and Eurasian Green-winged Teal). Recorded are 41 species of shorebirds, plus 1 distinctive subspecies (Pribilof Rock Sandpiper). Recorded also are 17 species of Larids (gulls, terns, and one jaeger). The wetlands are also valuable during migrations, primarily April and late August into early November, for a great variety and moderate numbers of raptors, including Short-eared Owls.

Of the 72 species and subspecies of shorebirds addressed in the U.S. and Canada National Shorebird Plans, almost half (49%) have experienced apparent population declines since 1970. For 17 of these taxa, all but one of which occurs on the Mendenhall Wetlands, the declines are statistically significant (Andres & Gill 2000).

The numbers of birds occurring on the wetlands can be quite large. In every month except June, over 2,000 birds have been counted in the area at one time. During spring migration, in April and May, the total number of birds could reach a daily high of 16,000+ individuals. By species the greatest number (over 1,000 at one time) have been Canada Goose, Mallard, Surf Scoter, Ruddy Turnstone, Surfbird, Western Sandpiper, Bonaparte?s Gull, Mew Gull, Glaucous-winged Gull, and Northwestern Crow. Substantial numbers (over 500 at one time) of other species have also been documented: Northern Shoveler, Greater Scaup, White-winged Scoter, Semipalmated Sandpiper, Least Sandpiper, Pectoral Sandpiper, Dunlin, Short-billed Dowitcher, and Common Redpoll. These daily high counts only represent a small fraction of the total number of individuals that utilize the Mendenhall Wetlands in any given year. For migratory shorebirds this number could be quite high, especially considering that the daily turnover is rapid; shorebirds, for example, may spend only one to three days at resting and refueling sites on their way to their northern breeding grounds (Iverson et al. 1996).

An excellent database of bird observations exists for the Mendenhall Wetlands. This database includes 10,881 bird observations made since 1986. The database is included on a CD with the report by Armstrong et al. 2004. Also included in this report is a

complete list of species known to have occurred in the area and their recorded abundance by week.

Conservation Issues

The Mendenhall Wetlands could be one of the most threatened Important Bird Areas in Alaska. It is surrounded by major urban development and immediately adjacent to an international airport. Also, immediately adjacent to the wetlands is Juneau?s largest sewage treatment plant, the city and borough?s landfill (which no longer burns garbage), and a large salmon aquaculture facility that discharges millions of pounds of ground-up salmon each year. Besides the direct threats that these facilities have on birds and their habitat a number of future plans and actions could diminish the value of these wetlands for birds. These include a second bridge crossing, airport expansion, and land acquisition of accreted lands by adjaceut land owners.

Ownership

Most of the Mendenhall Wetlands are owned by the State of Alaska and are included in the 3,786 acre Mendenhall State Game Refuge. This refuge is managed by the Alaska Department of Fish and Game. A much smaller portion falls under the jurisdiction of the Juneau City and Borough ? this land is managed by the Juneau Airport. Another small portion is privately owned, this includes, the Smith-Honsinger Pond, an important area for waterfowl and other birds and the Juneau golf course.

Habitat

The Mendenhall Wetlands complex has the third greatest acreage of vegetated tidal salt marsh of all estuaries in Southeast Alaska. It is widely ackuowledged to be one of the key migratory waterfowl and shorebird stopover locations of coastal Alaska.

The Mendenhall Wetlands includes all open, undeveloped land between the coniferous forest to the north, on the mainland, and the forest to the south, on Douglas Island. The east and west boundaries are the saine as the Mendenhall Wetland State Game Refuge. Within these boundaries are small groves of spruce and supratidal meadows also known as uplift meadows. Plant diversity in these uplift meadows is high and important for mammalian grazers such as deer, bear, and porcupine. Sparrows and warblers nest in these meadows in fairly large numbers. Below the uplift meadow areas is the salt marsh.

This salt marsh includes a ?high marsh? ? dominated by several species of grasses ? and a ?low marsh? ? dominated locally by lyngbye sedge. Below the sedge zone there are

several different community types depending on substrate (finer muds or coarser sand and gravels) and exposure to tidal currents. In some cases sedges transition abruptly to mud flats. Elsewhere, a shorter ?lawn? of alkali grass, goosetongue, sea milkwort, and arrow-grass can be found.

A portion of the Mendenhall Wetlands is always covered by salt water. These areas especially provide forage for diving ducks and in the shallower areas forage for dabbling ducks.

Land Use

Since the Mendenhall Wetlands is located within the boundaries of a major Alaskan city (Juneau) it is used for a wide variety of activities. Most noteworthy are such activities as bird watching, research, education and hunting. Some of the land is destined for other uses but currently retains wetland characteristics that make it useful for birds.

Share this Important Bird Area

Birds in This Area

American Golden-Plover
Latin: Pluvialis dominica



Black Turnstone
Latin: Arenaria melanocephala



Bonaparte's Gull

Canada Goose

Dunlin

Greater White-fronted Goose

Lesser Yellowlegs

Pectoral Sandpiper

See all »

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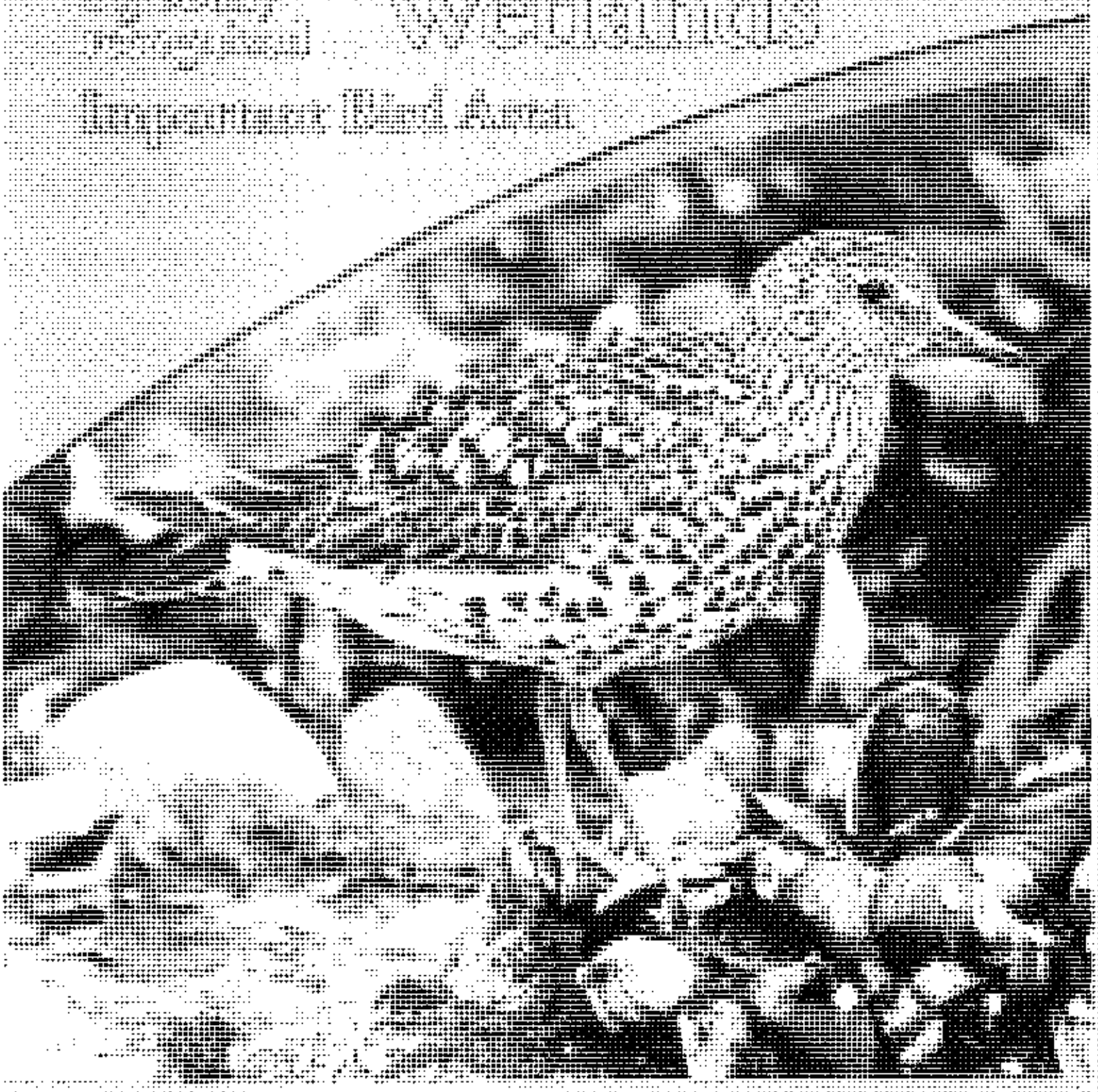
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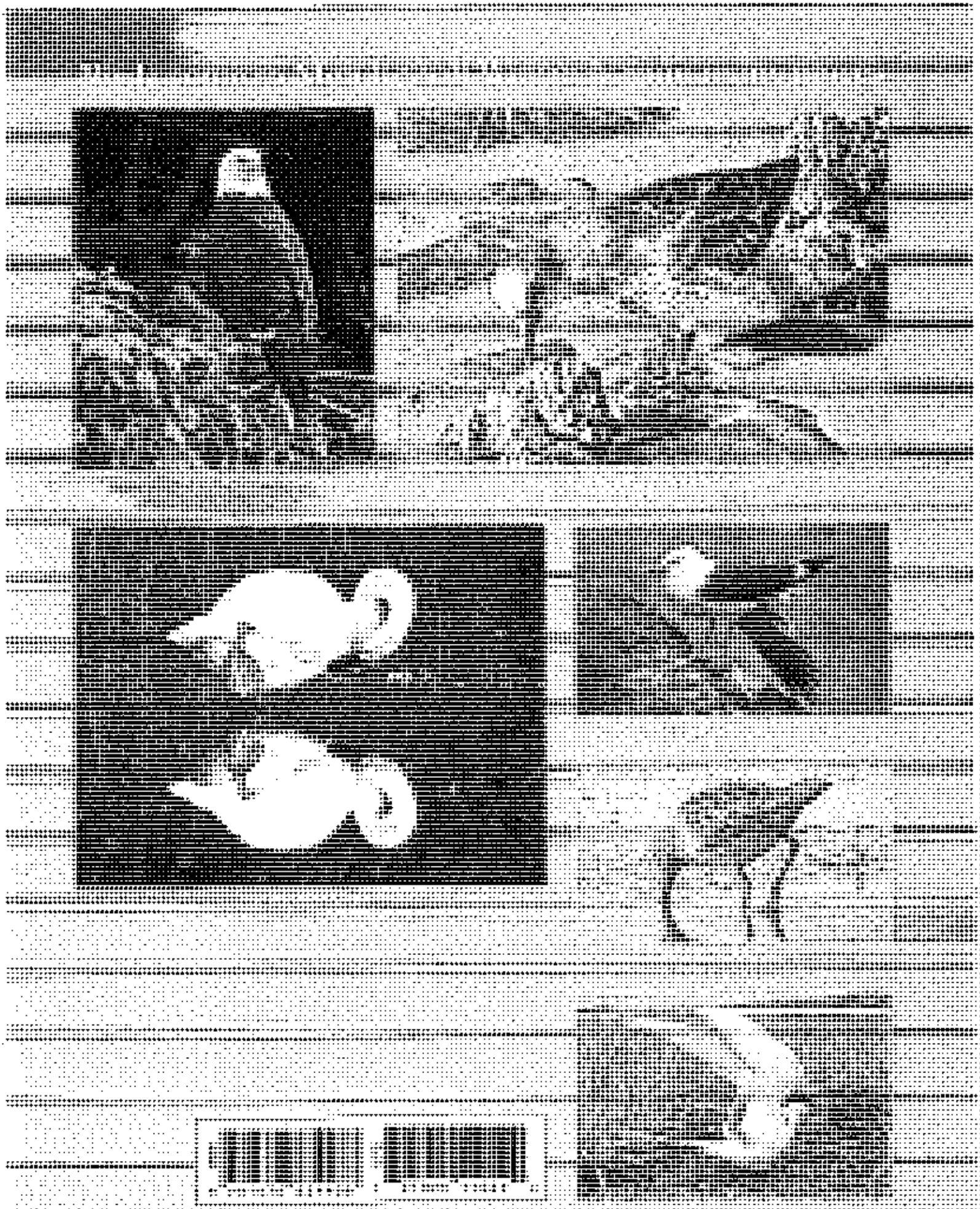


The Mendenhall Wetlands

a globally recognized

Important Bird Area





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Paul Suchanek graciously provided us with his bird database for the Wetlands that included more than 15,000 entries on the numbers of birds by species. Rich Gordon gave us his notes on bird abundance by species that included information he had gathered on the Wetlands for over 40 years. Pauline Strong produced the monthly summaries of this data on pages 33-40. Patty Rose and Gus van Vliet reviewed the phenology chart and made several useful corrections.

Rich Gordon and Steve Zimmerman helped prepare the application for the establishment of the Wetlands as an Important Bird Area. This designation was the seed that grew into this book.

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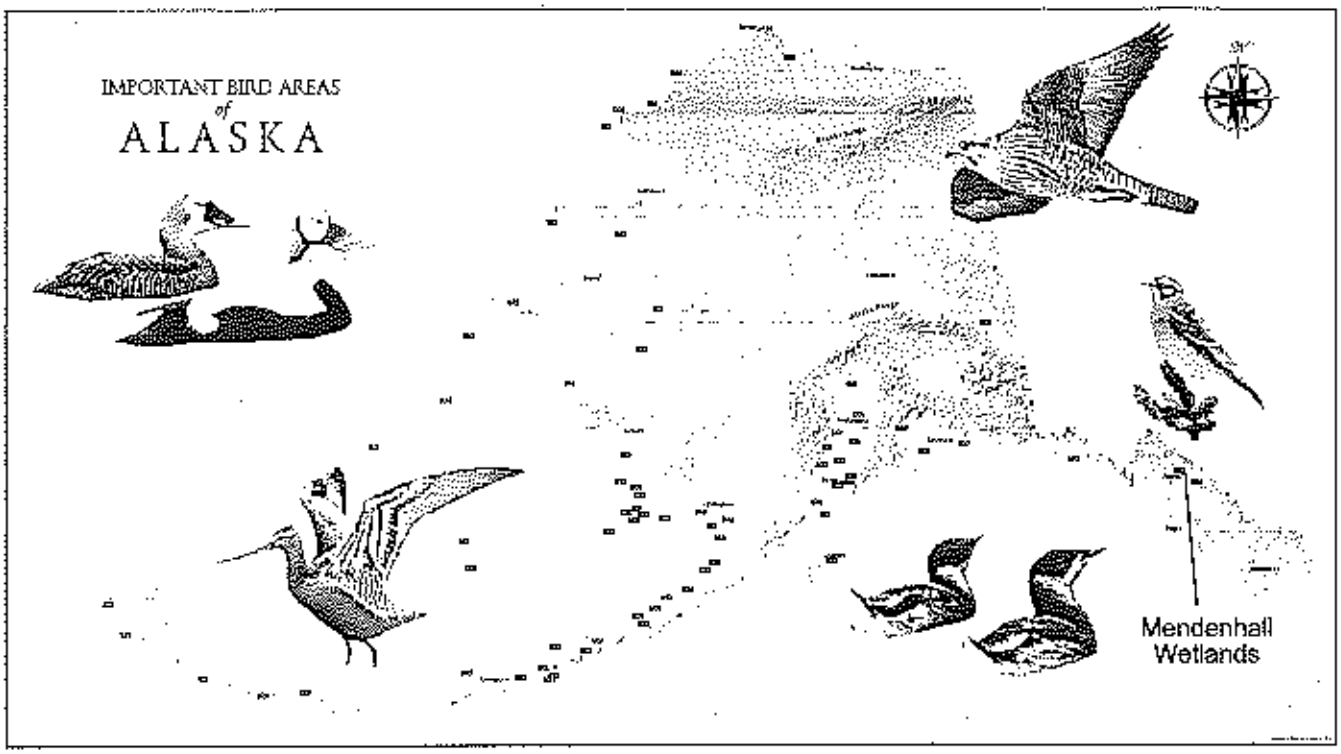
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Cover: Surfbird feeding amongst the mussel beds.



As of 2009, Alaska has 145 Important Bird Areas. The majority of these, including the Mendenhall Wetlands, are also recognized as globally or continentally significant. In fact, Alaska has almost half of all globally significant Important Bird Areas identified in the United States.

To showcase these habitats, Audubon Alaska is offering beautiful, poster-sized maps suitable for hanging on the wall or in a classroom. To order a free copy of one of these maps visit the Audubon Alaska website at http://www.audubonalaska.org/



The Southeast Alaska Land Trust is a private, non-profit organization supported by local memberships, private foundations and public grants. *Our mission is to work with communities and private land owners to ensure that vital natural areas remain in place for the benefit of each generation.*

The Mendenhall Wetlands are vital to a significant and diverse population of birds. This salt water, tidal marsh area is the third largest in Southeast Alaska and provides critical rest and replenishment for both migrating and resident birds.

Although the Mendenhall Wetlands fall largely within the defined boundary of the State's Game Refuge, the protections of that designation are vulnerable—not only to the effects of surrounding land uses, but, surprisingly, to the land's natural uplift caused by glacial retreat. Much of the property surrounding the Refuge is legally defined in a way that allows the upland owners to progressively make claim to lands extending out to the retreating mean high tide line—to lands within the original Refuge boundary. For each upland owner, these "accreted lands" are measured in acres. Claims of one or two acres are typical and up to 15 acres have been claimed in a single case. As the rebound continues, additional claims may be made.

The Southeast Alaska Land Trust is working to convert this moving Refuge boundary into a fixed, stable boundary, or to provide conservation protections on the private, "accreted lands." Using mitigation fees paid to compensate for unavoidable wetland impacts from Juneau airport projects, we will offer to purchase these "accreted lands" outright or, alternately, conservation easements from willing upland owners. Accretion claims will, otherwise, slowly privatize lands around a shrinking Refuge perimeter, and over time give way to urbanization.

The Mendenhall Wetlands provide a glimpse into the timeless cycle of life on the planet. We congratulate the authors on their work. Each of us is grateful to you for making your observations of this place so brilliantly accessible to inform our experience. Thank you.

We are grateful for the generosity of an anonymous SEALTrust donor who has funded printing of this book, and we are committed to assist in the long-term protection of this vital, natural area. May each generation share our experience of this wondrous place!

Diane Mayer
Executive Director
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MENDENHALL WETLANDS STATE GAME REFUGE MANAGEMENT PLAN

March 1990

Prepared by the Divisions of
Habitat and Wildlife Conservation

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Don W. Collinsworth, Commissioner

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Rick Reed, ADF&G Habitat Division Regional Supervisor, contributed significant time and expertise in the development of this plan. Linda Kruger, ADNR Division of Parks and Outdoor Recreation, also participated in the earlier phases of the planning process.

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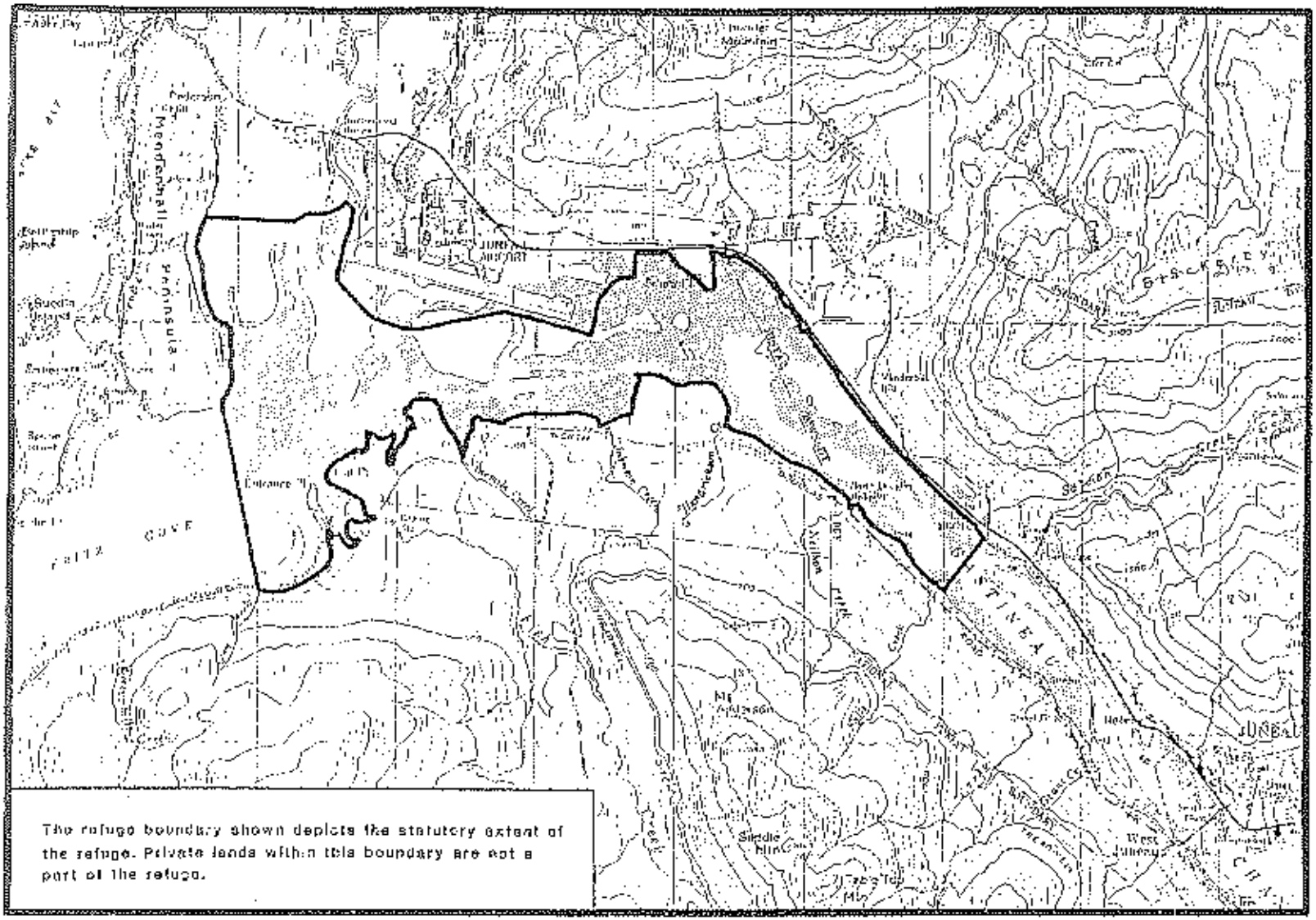
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MENDENHALL WETLANDS STATE GAME REFUGE

INTRODUCTION

Mendenhall Wetlands State Game Refuge, extending along Juneau's Gastineau Channel from Salmon Creek to Mendenhall Peninsula, was established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation.

The purpose of the Mendenhall Wetlands State Game Refuge Management Plan is to provide consistent long-range guidance to the Alaska Departments of Fish and Game and Natural Resources and other agencies involved in managing the refuge.

The Mendenhall Wetlands State Game Refuge encompasses approximately 3,800 acres and is best known for the Canada geese, ducks, and bald eagles that use the intertidal habitats. (For complete refuge and background resource information, see Appendix). The refuge is also enjoyed year-round by residents and visitors alike for seasonal activities such as wildlife viewing, waterfowl hunting, fishing, boating, horseback riding, and general sightseeing. Mendenhall Wetlands is the most popular area for public recreation in the Juneau area. In addition, development around the perimeter has continued to occur as the city of Juneau has grown and evolved. In order to evaluate the compatibility of both recreational uses and perimeter development with the protection of fish and wildlife, their habitats, and public use of the refuge, the Alaska Department of Fish and Game has undertaken a comprehensive refuge management planning process to produce this plan.

The plan presents management goals for the refuge and its resources and identifies policies to be used in determining whether proposed activities within the refuge are compatible with the protection of fish and wildlife, their habitats, and public use of the refuge. The plan will be formally reviewed and, if appropriate, updated every ten years. Public participation will be solicited during the update process. The plan affects state lands only, not private or municipal lands. The plan does not address hunting or fishing regulations which are the authority of the Boards of Fish and Game.

This document is the result of a public planning process led by the Alaska Department of Fish and Game. The plan has been developed by the planning team representing state, federal, and municipal agencies including: the Alaska Departments Environmental Conservation, Fish and Game, Natural Resources, and Transportation and Public Facilities; the National Marine Fisheries Service; the United States Coast Guard; the United States Fish and Wildlife Service; and the City and Borough of Juneau.

At the outset of the public planning process a public meeting was held in Juneau to explain the planning process and solicit citizens' issues, interests, and concerns for the refuge. The meeting results were used by the planning team to identify a list of issues to be addressed in the plan. At the same time resource information on refuge fish and wildlife populations and their habitats, other natural resources, existing land use, and land ownership was being collected and synthesized. This information, presented in both map and narrative form, comprises the plan's Resource Inventory.

Management goals and policies for the refuge were developed by the planning team to address the identified issues. All policies were developed with consideration of their ability to meet the

management goals. In addition, other statutory constraints including the public trust doctrine, which applies to tide and submerged lands, were considered. The draft plan went out for public review.

Based on comments received during the public review process, final policies were developed. The goals and policies were then adopted by the Commissioner (5 AAC 95.520).

The plan is implemented by the Alaska Department of Fish and Game in several ways. A Special Areas Permit is required for any habitat altering activity, including any construction work, in a designated State Game Refuge (5 AAC 95). A Special Areas Permit application form can be obtained from any Alaska Department of Fish and Game office and should be submitted to the Habitat Division Regional Office in Douglas. The Habitat Division will review all proposed activities for consistency with the goals and policies outlined in this plan. Activities will be approved, conditioned or denied based on the direction provided in this plan as well as state laws and regulations.

Future refuge management activities of the Alaska Department of Fish and Game will also be directed by this plan. Research programs, public use facilities, and other department projects will be consistent with the goals and policies presented in this plan.

Other state, federal, and local agencies have management responsibilities on refuge lands as well. This plan does not in any way alter other state, federal or local authorities and requirements on refuge lands. Any use, lease or disposal of resources on state land in the refuge requires Alaska Department of Natural Resources authorization. Activities affecting air or water quality require authorization from the Alaska Department of Environmental Conservation. The United States Army Corps of Engineers (COE) evaluates applications of the United States Department of the Army permits for discharging dredged and fill material in waters of the United States including wetlands. Federal and state agencies, including the United States Fish and Wildlife Service and National Marine Fisheries Service, along with local governments, review proposals for COE permits, pursuant to the Fish and Wildlife Coordination Act (16 USC 661-666 et.seq.). United States Coast Guard approval is required for certain kinds of work in navigable waters. The U.S. Fish and Wildlife Service also has authority under the Bald Eagle Act (16 USC 668-668d), the Migratory Bird Treaty Act, as amended (16 USC 701-718h), and the Department of Transportation Act (49 USC 1653(f)), among others. The City and Borough of Juneau reviews and comments on all permit proposals within the coastal zone, including the Mendenhall Wetlands State Game Refuge.

STATUTES

Alaska statutes which pertain specifically to the establishment and management of Mendenhall Wetlands State Game Refuge are as follows:

Sec. 16.20.020. Purpose. The purpose of this chapter is to protect and preserve the natural habitat and game population in certain designated areas of the state.

Sec. 16.20.034. Mendenhall Wetlands State Game Refuge. (a) The following state-owned land, including tide and submerged land and excluding privately-owned land, is established as the Mendenhall Wetlands State Game Refuge: Beginning at U.S.C.G.S. Triangulation Station "Salmon" located on the northeastern shore of Douglas Island, lying within the City and Borough of Juneau, First Judicial District, State of Alaska; thence northeasterly across Gastineau Channel approximately .5 miles to U.S.C.G.S. Triangulation Station "Creek," said station being on the shore of Gastineau Channel, 200 feet south of Salmon Creek; thence trend northerly to the intersection of Egan Drive and Salmon Creek; thence trend northwesterly immediately adjacent to but not upon or within the designated right-of-way of Egan Drive approximately 2.7 miles to the intersection with the easterly boundary of Sunny Point Park Subdivision, recorded as Plat No. 333; thence southerly along said boundary; thence along said right-of-way line to the intersection with the 22.7 foot extreme high tide line; thence southerly and westerly on said 22.7 foot extreme high tide line, abutting said Sunny Point Park Subdivision, U.S. Survey 2475, Sunny Point Subdivision (Plat No. 307), and Egan Drive approximately one mile to the easterly line of the accreted property to the U.S. Survey No 1568; thence southerly and westerly, along the boundary of said accreted property approximately .4 miles to Corner No. 14 of Alaska Tidelands Survey No. 716; thence southerly and westerly along the west meander line of U.S. Survey No. 716, approximately 2.6 miles to Corner No. 4 of said Tidelands Survey; thence northerly along the west meander line of U.S. Survey No. 1742, approximately 790 feet to the northwesterly corner of Juneau Airport property (Corner No. AP-4 of survey dated June 1969); thence northwesterly approximately 440 feet to the southerly meander line of U.S. Survey No. 1919; thence southerly and westerly, along the southerly meanders of U.S. Surveys No. 1919 and No. 1042 (as accreted), approximately .5 miles to the intersection with the south line of U.S. Survey No 2136; thence westerly, along said south line, approximately .6 miles to the intersection with the 22.7 foot extreme high tide line; thence southerly, along said line approximately 1.4 miles to U.S.C.G.S. Triangulation Station "Glacier" on the southerly tip of Mendenhall Peninsula; thence in a southerly direction across Gastineau Channel approximately 1.3 miles to the mouth of Cove Creek; thence in a general easterly direction along the 22.7 foot extreme high tide line of Douglas Island approximately 9 miles to U.S.C.G.S. Triangulation Station "Salmon," the true point of beginning.

(b) The state may not acquire by eminent domain privately-owned land within or abutting state-owned land described in (a) of this section for inclusion in the Mendenhall Wetlands State Game Refuge but may acquire privately owned land by purchase, exchange or otherwise for inclusion in the Mendenhall Wetlands State Game Refuge.

(c) Leases, permits, and applications for leases or permits in effect or submitted by January 1, 1976 are not affected by the provisions of this section. Renewals of leases or permits after January 1, 1976 are subject to this section.

(d) Egress and ingress across state land to and from private property within or abutting the land described in (a) of this section shall be allowed through access corridors established through agreement between the department and the private property owners affected.

(e) Except within that portion of the Mendenhall Wetlands State Game Refuge commonly known as the Twin Lakes area, the boundaries of which shall be established by the department after consultation with the City and Borough of Juneau, the taking of game is expressly permitted within the land described in (a) of this section if consistent with the management plan adopted by the department and conducted under regulations adopted by the board.

(f) Recreational activity is expressly permitted within the land described in (a) of this section if consistent with the management plan adopted by the department and conducted under regulations adopted by the board.

(g) Management of the surface and subsurface estate is the responsibility of the Department of Natural Resources. Any actions by the Department of Natural Resources which affect the habitat shall be in conformity with a plan proposed and adopted by the Department of Fish and Game, after reasonable public hearings, and following consultation with the City and Borough of Juneau. The plan shall be revised annually, if necessary and appropriate, under the same procedures followed for initial adoption.

(h) An activity or use may not occur under (a) of this section in a manner which creates a hazard to aircraft. Gravel extraction is not considered an incompatible activity on or abutting state-owned land described in (a) of this section and is subject to provisions of the management plan. Except for those ponds, lakes or other bodies of water adjacent to the airport that are required to be maintained by the City and Borough of Juneau as a seaplane basin under certification for the Juneau Municipal Airport granted by the Federal Aviation Agency, if requested by the City and Borough of Juneau the Departments of Fish and Game and Natural Resources shall assist in filling the ponds, lakes or other bodies of water adjacent to the existing airport runway to eliminate them as sites attractive to waterfowl.

(i) The management plan adopted under (g) of this section shall include provisions under which the City and Borough of Juneau may acquire land, by sale, exchange or otherwise, for purposes of expanding the Juneau Municipal Airport, establishing additional transportation corridors, including water corridors, and establishing publicly-owned and operated docking facilities, and these uses are considered preferential under Article VIII of the state constitution but subject to the requirements for plan specification and approval under AS 16.20.060. A deed, contract of sale, lease, or other instrument evidencing disposition by the Department of Natural Resources of land under this subsection shall include, among other terms, the condition that the land is restricted to use for airport expansion, establishing additional transportation corridors, including water corridors, and establishing publicly-owned and operated docking facilities.

(j) Notwithstanding the provision of (d)-(i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that there is a superior public need for or use of the land to its use as a state game refuge, after public hearing

and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560-44.62.570.

(k) Nothing in this section prevents the City and Borough of Juneau from exercising its land selection rights to state land within its boundaries under applicable law, providing the selection is by local ordinance.

GOALS

Activities which occur within the Mendenhall Wetlands State Game Refuge will reflect the following goals in accordance with the purpose for which the refuge was established (AS 16.20.020). All management decisions in the Mendenhall Wetlands State Game Refuge, whether affecting activities undertaken by the department, other agencies, or the public, will be in accordance with these goals.

I. Fish and Wildlife Populations and Their Habitat - Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental developments and actions affecting refuge resources.

A. Wildlife

1. Protect important wildlife habitat including water quality.

2. Minimize harmful disturbance to wildlife, especially to nesting, rearing, staging, and wintering waterfowl.

3. Maintain, protect, and, where appropriate, enhance the quality and quantity of nesting, rearing, staging, and wintering habitat for resident and migrant waterfowl.

4. Protect bald eagle nesting, perching, and roosting habitat including the maintenance of windfirm boundaries around large old trees.

5. Protect endangered species habitat (e.g., peregrine falcon and humpback whale).

6. Minimize harmful disturbance to endangered species (peregrine falcon and humpback whale).

B. Fish

1. Protect water quality and circulation patterns to maintain fish habitats.

2. Maintain refuge water quality sufficient for the growth and propagation of fish, shellfish, and other aquatic life in fresh, estuarine, and marine waters.

3. Maintain refuge water quality sufficient for harvesting for human consumption of raw mollusks or other raw aquatic life.

4. Maintain and, where necessary, improve the hydrologic integrity of the refuge.

II. Public Use - Manage the refuge to maintain and enhance public use of fish, wildlife, and refuge lands.

A. Maintain public access to and within the refuge consistent with the goals of this management plan.

B. Maintain opportunities for hunting waterfowl and fishing within the refuge.

C. Maintain opportunities to recreate in the refuge consistent with the goals of this management plan.

D. Maintain opportunities for viewing, photography, education, and study of fish and wildlife.

E. Provide information about the refuge to the public.

Explanation of Terms

Minimize: To reduce harmful effects to a level which does not have a significant adverse impact on fish or wildlife populations or their habitats within the refuge or significantly reduce public opportunity for successful harvest and/or non-consumptive use of fish and wildlife.

Harmful Disturbance: Activities which displace animals from their natural habitat or interrupt their seasonal activities at a frequency or duration which causes significant impact to refuge fish and/or wildlife populations. Harmful disturbance does not refer to the legal harvest of fish and/or wildlife.

POLICIES

The policies provided in this plan will be used to guide decisions on management activities and Special Area Permits in the refuge.

Hunting, Fishing, Wildlife Viewing

Maintain and, where appropriate, improve opportunities for hunting, fishing, and wildlife viewing. Develop and implement an effective public information program about hunting, fishing, and wildlife viewing rules and regulations.

Recreational Use

Maintain and, where appropriate, improve opportunities for recreational use of the refuge consistent with the statutes which established Mendenhall Wetlands State Game Refuge and the goals and policies of this plan.

Information/Education

Develop an information/education program for the refuge which will inform the public about refuge values, rules, and recreational opportunities through signs, bulletin boards, brochures, mail-outs, news releases, community presentations, litter clean-up, interpretive trails, and other appropriate means.

Public Access

Encourage continuing public use of and, as appropriate, develop the following public access points: 1) Mendenhall Peninsula, 2) Engineer's Cut-off Road, 3) Industrial Boulevard, 4) Airport Dike, 5) Sunny Point Drive, 6) Switzer Creek, 7) Refuge Viewing Platform, 8) Twin Lakes, 9) Salmon Creek, 10) Ninemile Creek Road, 11) Ninemile Creek, 12) Fish Creek, and 13) North Douglas Boat Ramp. As appropriate, plan for and develop additional public access points where consistent with management plan goals and policies. Manage public access to the refuge in a manner which will maintain refuge resources and values.

Motorized Vehicles

To ensure the protection of sensitive habitats and avoid harmful disturbance to fish and wildlife, the department will not issue general permits for the off-road use of wheeled, tracked or other ground-effect motorized vehicles within the refuge. The department will, it its discretion, issue an individual Special Area Permit under 5 AAC 95 for the off-road use of a wheeled, tracked, or other ground-effect motorized vehicle if the use is consistent with the goals and policies of this management plan and fulfills a demonstrable need for which there is no feasible alternative. An individual Special Area Permit will not be issued for recreational use of off-road motorized vehicles within the refuge.

Habitat Restoration and Enhancement

Evaluate and, as appropriate, implement wildlife or fish habitat restoration and enhancement projects. Give specific attention to restoration of disturbed habitat, enhancement of anadromous fish habitat, and enhancement of waterfowl habitat. Waterfowl enhancement projects will be sited and designed to avoid conflict with airport air traffic patterns.

Water Quality

Water quality of marine and estuarine environments in the refuge shall meet or exceed water quality standards for: a) growth and propagation of fish, shellfish, other aquatic life and wildlife; and b) harvesting for consumption of raw mollusks or other raw aquatic life. Cumulative effects of waste discharge shall be considered when determining appropriate activities within the refuge and must meet the above specified standards. Discharge of treated waste products may only be allowed within the refuge when there is a demonstrable need for which there is no feasible off-refuge alternative.

Aquaculture/Mariculture

Aquaculture and mariculture activities may be allowed which maintain or enhance refuge resources and values consistent with management goals and policies.

Land Acquisition

Purchase or trade to acquire private lands or conservation easements within the refuge from willing sellers as time and funding permit. Donation of lands for addition to the refuge will also be considered.

Boats, Float Houses, and Mooring Buoys

Long-term boat anchorage (14 days or longer), intertidal boat maintenance, and float house moorage is not allowed within the refuge. Traversing of rooted vegetation in airboats and hovercraft is prohibited. Mooring buoys are not allowed within the refuge except as allowed under the "Access for Adjacent Landowners" policy.

Access for Adjacent Landowners

Adjacent landowners will be permitted access across refuge lands on a case by case basis in a manner consistent with refuge statutes and regulations and the goals and policies of this management plan.

Transportation Corridor

The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of refuge

lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel.

New private, exclusive use transportation corridors will not be authorized within the refuge.

Airport Expansion

Current projected airport expansion will not involve refuge lands; however, the City and Borough of Juneau may acquire refuge lands for airport expansion only after the City and Borough of Juneau demonstrates the following: 1) that there is a significant public need for the expansion which cannot reasonably be met off-refuge or through use of alternative transportation modes and technologies; 2) that the use of refuge lands are avoided or minimized to the maximum extent feasible; 3) that all impacts to the refuge and to refuge resources are fully mitigated through restoration and/or replacement; and 4) that the airport expansion project will not create a hazardous attraction for waterfowl.

Public Docking Facility

The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site shall avoid dredging and filling for construction and maintenance to the maximum extent feasible.

Structures

Allow new permanent structures within the refuge only for the purpose of habitat maintenance and enhancement, public use and enjoyment of the refuge, or essential navigational and avigational aids. Allow new temporary structures only when there is a demonstrable public need for which there is no feasible off-refuge alternative. All structures must be consistent with refuge statutes and regulations and the goals and policies of this management plan. Regarding authorization for structures for access to adjacent private lands see the "Access for Adjacent Landowners" policy.

Shoreline Alteration

Do not allow alteration of the natural refuge shoreline through dredging or filling except for maintaining the Gastineau navigational channel or for maintaining, restoring, or enhancing refuge habitat. Dredging and filling activity must be consistent with refuge statutes and regulations and the goals and policies of this management plan.

Grazing

With the exception of incidental grazing of animals while being ridden across the refuge, the grazing of domestic or feral animals within the refuge is prohibited.

Material Extraction

Do not allow material extraction (gravel removal) within the refuge unless for purposes of maintenance or enhancement of refuge habitat. All gravel extraction activities must be consistent with refuge statutes and the goals and policies of this management plan.

Mining

Do not allow mineral leasing within the refuge. Recommend closure of the refuge to new locatable mineral entry and closure of tide and submerged lands within the refuge to issuance of offshore prospecting permits.

Utility and Pipeline Easements

A new utility or pipeline may be allowed to cross the refuge where there is no feasible off-refuge alternative, using an existing corridor wherever possible, consistent with refuge statutes and the goals and policies of this management plan. Any easement issued within the refuge will be non-exclusive use only. A permitted utility line or pipeline will be buried where feasible and the corridor surface will be returned to pre-project conditions. In order to minimize bird strike problems, aerial powerlines will be avoided to the maximum extent feasible. Easements for new sewer outfalls may only be allowed within the refuge when there is a demonstrable need for which there is no feasible off-refuge alternative. Easements for existing sewer outfalls will be allowed where consistent with the goals and policies of this management plan.

Other Uses

To protect refuge habitat and fish and wildlife populations the department may allow by permit only those activities compatible with the purposes for which the refuge was established, terms and standards of 5 AAC 95, and the goals and policies of this plan. Any activity which is not compatible with the purpose for which the refuge was established, terms and standards of 5 AAC 95, and the goals and policies of this plan will not be allowed.

Explanation of Terms

Feasible: capable of being done.

Reasonable: within the bounds of common sense.

Significant public need: required or necessary for the good of the community.

Temporary: one year or less duration.

Transportation corridor: a designated passageway on land and/or water over which people and goods are conveyed.

MENDENHALL WETLANDS STATE GAME REFUGE

REGULATIONS

5 AAC 95.520 MENDENHALL WETLANDS STATE GAME REFUGE MANAGEMENT PLAN. The goals and policies of the Mendenhall Wetlands State Game Refuge Management Plan dated March 1990 are adopted by reference. The plan presents management goals and policies for the refuge and its resources that the department will use in determining whether proposed activities on the refuge are compatible with the protection of fish and wildlife, their habitats, and public use of the refuge. Under 5 AAC 95.420, a special area permit is required for certain activities occurring in a designated state game refuge. The department will review each special area permit application for consistency with the goals and policies adopted by reference in this section. A special area permit issued for Mendenhall Wetlands State Game Refuge will be approved, conditioned, or denied based on the criteria set out in those goals and policies, and on the standards contained elsewhere in 5 AAC 95. (Eff. 8/5/90, Register #115 Oct 90)

Authority: AS 16.05.020
AS 16.05.050
AS 16.20.020
AS 16.20.034
AS 16.20.060

EDITOR'S NOTE: Copies of the Mendenhall Wetlands State Game Refuge Management Plan are available at the Douglas office of the Department of Fish and Game, Island Center Building, P.O. Box 20, Douglas, Alaska 99824.

IMPLEMENTATION

The Mendenhall Wetlands State Game Refuge Management Plan will be implemented by the Alaska Department of Fish and Game through its day to day on-the-ground management activities, through its annual budgeting process, and through Special Area Permits issued for land use activities within the refuge.

Special Area Permits. A Special Area Permit is required for any habitat altering activity, including construction work, in Mendenhall Wetlands State Game Refuge. A Special Area Permit application form can be obtained from any Alaska Department of Fish and Game office and should be submitted to the Habitat Division's regional office in Juneau (5 AAC 95).

Fish and Wildlife Protection. State fish and wildlife protection officers patrol the Mendenhall Wetlands State Game Refuge and provide on-the-ground enforcement of harvest regulations, refuge regulations, and permit requirements.

Operational Management Plan. Subsequent to the adoption of this plan, the Alaska Department of Fish and Game will proceed to develop an operational management plan for the refuge. This operational management plan will detail implementation of the policies adopted in this plan and will provide details on the projects, their schedules, staffing requirements, and budgets necessary for management of the refuge. Among the projects to be discussed will be development of a litter clean-up program.

Habitat Enhancement Projects. Refuge habitat enhancement projects will be developed in accordance with the goals and policies of this management plan through a public decision making process.

Water Quality Improvement Program. Alaska Departments of Fish and Game and Environmental Conservation staff will continue to monitor water quality on the refuge. Where water quality is out of compliance with state water quality standards and the water quality policy of this plan and sources of the problem are identified, Fish and Game and Environmental Conservation staff will work with the responsible individuals to resolve the water quality problem.

Refuge User Education. In an effort to reduce refuge user conflicts and improve a wide spectrum of recreational opportunities within the refuge, education of refuge users regarding safe hunting practices, non-harassment of wildlife, courtesy to adjacent landowners, and anti-litter messages will be pursued through the refuge information/education program.

Airport Dike Access. The Alaska Department of Fish and Game will continue to work with City and Borough of Juneau Airport management to maintain public use and enjoyment of the Airport Dike in accordance with the public access policy of this plan.

Citizen's Advisory Committee. Subsequent to the implementation of this plan, the department will establish a citizen's advisory committee to advise the department on issues relating to the protection and management of the refuge.

Other Agencies' Actions. It is anticipated that this document will also be used by other state, federal, and local decision makers in planning for and making decisions under their respective statutory authorities regarding lands within Mendenhall Wetlands State Game Refuge.

APPENDIX

MENDENHALL WETLANDS STATE GAME REFUGE
RESOURCE INVENTORY

RESOURCE INVENTORY
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INTRODUCTION

As its name implies, the Mendenhall Wetlands State Game Refuge (MWSGR) is comprised mostly of wetland habitats, dominated by a sedge meadow plant community. Above the estuarine zone, beach rye grass and upland marsh vegetation blend into spruce hemlock forest.

Located between Douglas Island and the mainland at Juneau in northern southeast Alaska, the 3,764 acre refuge stretches along nine miles of the Gastineau Channel and is accessed via the Egan Expressway, Sunny Point Road, North Douglas Highway, Fritz Cove Road, Mendenhall Peninsula Road, and the Juneau International Airport. This channel, formed originally by glacial activity and later modified by isostatic rebound, is today fed by silt-laden water from Mendenhall and Lemon Glaciers, as well as numerous smaller clear water systems, notably Falls, Fish, Jordan, Switzer, and Salmon creeks.

HISTORY

Prior to the creation of the State Game Refuge on the Mendenhall Wetlands by the 1976 Alaska State Legislature, the general area played a part in the development of the Juneau area. Captain George Vancouver's party charted Douglas Island and Gastineau Channel in 1794, but other white men had evidently been in the area, as local natives had blunderbusses and muskets. Vancouver's journals mention ice blocking the passage through Gastineau Channel.

European fur traders visited the area from at least 1799 through the 1860s; trading was apparently carried on with the Auk tribe who lived along and gathered natural resources from the wetlands.

In 1879, naturalist John Muir and Presbyterian minister S. Hall Young travelled through "the flats" as the area has often been called throughout its history. Muir noted the Mendenhall Glacier was in the "...first stages of decadence...." and observed the mineralization of the mainland shore. This latter fact was borne out in the following year when Juneau's "founding fathers," Richard Harris and Joe Juneau, discovered gold in the Silverbow basin. The city of Juneau was founded in 1900 and mining was active in the area through 1944. While mining may not have had much of a direct impact on what today are refuge lands, in the early teens one miner reported finding gold in the "Mendenhall Mud Flats." This turned out to be a practical joke but resulted in a stampede to the intertidal area by miners looking for the salted lode.

Impacts on the intertidal areas followed the growing population associated with development of the area. The Northwest Trading Company steamer "Favorite" carried passengers from Sitka to Fritz Cove, then passengers crossed the Mendenhall River Bar via

"...big dugout canoes." In 1911 the Salmon Creek dam and two power houses were built by the Alaska Gastineau Channel Mining Company. The AJ mine was known to have dumped rock from its operation onto the tidal flats in 1922; 3/4 million tons of rock were extended 500 feet into Gastineau Channel east of the refuge boundary.

In 1924 and 1925, marten, mink, and fox farming was conducted on what is today refuge property. And in 1926 the Mendenhall River was bridged. In the late teens and early 1920s, Thomas Knudsen had a dairy at the present site of the Juneau Municipal Airport. This operation was taken over by the Kendlers in 1922 (the same year that four navigation lights were installed to mark the Mendenhall Bar) and operated until 1965. The year 1934 marked the first use of Joe Kendler's fields as a runway and around 1936 the United States Army used the fields for this purpose.

In 1938/39 part of this farm was sold to Pan American Airways for use as an airfield, which was in turn enlarged by the Army in 1940/41. After the city of Juneau obtained the airport property, the runway was eventually extended to 8,468 feet in length. Although airport construction destroyed salt marsh habitat, ponds dredged during the project created loafing habitat for waterfowl.

In 1937 Harris boat harbor was dredged, and in 1941 the U. S. Navy submarine port was constructed. Quonset huts for housing personnel were erected at Duck Creek. The Golden North Salmon Derby, which began in 1938, has relied in part on fish originating from streams which drain into the wetlands.

Wetlands adjacent to Duck Creek were drained for agricultural purposes in 1940. As Joe Kendler stated, "Only land that produces giant timber...will make good farm land." In 1941 the bid was awarded for airport construction; two million cubic yards of material were moved during this project. One attitude expressed at that time was: "Another happy consequence...was that the wildlife moved deeper into the woods, and no longer bothered us or endangered our cattle."

In the early 1940s the Juneau Gun Club was first located at Salmon Creek and then moved to Mendenhall River at the present day site of the float plane pond. In the fall of 1944, federal game wardens found an estimated 20,000 waterfowl dead at this site from lead poisoning. This area, located at the floatplane pond, was closed and $70,000 in public funds were spent in rehabilitation.

In 1959/60, $750,000 was spent by the Army Corps of Engineers dredging a navigational channel between Gastineau Channel and Fritz Cove/Stephens Passage. By 1971, the channel had silted in and a "...natural equilibrium between deposition and erosion..." had been re-established, and the wetlands were again navigable only at high tide by small craft, similar to 90 years earlier. The sand islands created by the dredging are now sparsely vegetated with alder, cottonwood, willow, and young spruce bordered by thick mats of

beach rye. Dredging associated with the construction of the Egan Expressway was also conducted in the 1970s. General recognition of the importance of the Mendenhall Wetlands began in 1965 (it is interesting to note that in 1913 the Juneau Commercial Club, forerunner of the Chamber of Commerce, had as its keynote address a speech entitled "Redemption of the Tide Flats"). Public concern fully matured in the mid-to-late 1960s in relation to two subjects; 1) the first consideration of a land management plan for the area, and 2) the routing of the Egan Expressway across the flats. In addition to above mentioned habitat loss, acreage has also been lost due to gravel extraction. Garbage and sewage disposal have also impacted the wetlands.

When AS 16.20.034 was passed in 1976, the primary values of the refuge were recognized as fish and wildlife habitat and the associated human uses of these resources. Alaska Statutes, Title 16 (Sec. 16.20.020) states "The purpose...is to protect and preserve the natural habitat and game populations in certain designated areas of the state." Section 16.20.034(e and f), which addresses the Mendenhall Refuge, states that within most of the refuge "...the taking of game is expressly permitted..." and "Recreational activity is expressly permitted...."

PHYSICAL ENVIRONMENT

Climate

The mean annual temperature at the NOAA Weather Service station at the Juneau Airport is 40.0 degrees F (mean maximum = 46.6, mean minimum = 33.3). The record high temperature was 90 degrees F in July 1975, while the record low was minus 22 degrees F in January 1972. Temperature variations are generally not extreme due to the ameliorating influence of the local marine conditions. The average rainfall is 53 inches and snowfall, measured October through April, averages 106 inches. October, the wettest month, has received over 15 inches of rain, while the driest month, April, has received as little as 1/4 inch. Record monthly snow deposition has been over 86 inches (February).

Soils

Soils that were mapped by 1970 include tidal flats and gravelly beaches. A BeA type (very gravelly sands, 0-3 percent slope) was also found to be quite prevalent. Silt and fine sand are predominant materials of the tidal flats.

Mites (Acarina) and springtails (Collembola) are the most abundant soil organisms in MWSGR soils.

Geology/Glaciation

Thousands of years ago glaciers carved out the series of islands, channels, and fiords of southeast Alaska. These dynamic forces played a large part in creating Gastineau Channel and the Mendenhall Wetlands. The glacial ice grinds bedrock into fine sediment which is carried to the flats by way of Mendenhall River and Lemon Creek; these materials contribute to the wetlands soil used by intertidal vegetation. The combination of this deposition and isostatic rebound (i.e., the gradual up-lifting of the wetlands once relieved from the weight of the ice) is commonly referred to as accretion. In time, these processes could virtually eliminate these wetlands. The possibility of rising sea levels is another on-going process which has potential to affect refuge habitats.

The Mendenhall Wetlands Game Refuge lies geologically within the Gastineau Channel Formation which is composed of three primary layers of heterogeneous glaciomarine deposits of late Pleistocene and early Holocene age. These deposits contain pebbles and larger broken rock dispersed through a fine-grained matrix of predominantly silt and sand.

Of the three deposits, the oldest is a gray to dark-bluish gray, stone-rich layer that is a till-like mixture of broken rock within a generally compact and massive fine-grained matrix. Cobbles and boulders, some as large as ten feet across, are scattered through the deposit. Shells of marine mollusks, barnacles, and foraminifera are common.

The second and younger dark bluish-gray gravel-rich layer is closely packed angular to subangular pebble sized fragments in a sandy matrix. This layer is low in silt and clay particles.

The youngest layer differs from the others in that plant remains are common in some exposures, the layer is less dense, and thin laminations in the deposit are widespread.

All three layers of the Gastineau Channel Formation are typically overlain by a thin but widespread blanket of reddish organic beach gravel. The presence and the thickness of the beach gravel depends on the local depositional environment and subsequent exposure to erosion.

There is no information as to the specific minerals of mining interest within the refuge; however, in southeast Alaska several minerals have historically been sought on beaches along bays and fiords. These minerals include magnetite, iron, and barite and, at certain places, gold, garnet sand, and rare earth minerals. In Juneau, gold naturally deposited or contained in old gold mine tailings may be of interest.

Hydrology

Gastineau Channel is subject to daily tidal action, which displays a diurnal inequality. That is, of the two high tides within a 24 hour period, one generally exceeds the other by several feet; the same is true of the two low tides. The mean tidal range is 14.0 feet, while the diurnal range (from mean higher high water to mean lower low water) is 16.6 feet. The extreme tidal range is about 26.5 feet.

Fresh water from Mendenhall River, Lemon Creek, Fish Creek, and others, as well as rainfall, maintain water levels in ponds on the refuge. The Mendenhall River has averaged flows of 1,100 cubic feet per second over 21 years, with a record maximum flow of 17,000 cfs and a record minimum of 19 cfs. Fish Creek has averaged (20 years) 78 cfs, with record maximum and minimum flows of 2,120 and 10, respectively. Lemon Creek's 4-year average is 214 cfs, with 608 and 7 cfs the maximum and minimum records, respectively.

BIOLOGICAL RESOURCES

Vegetation

Mendenhall River silt, sand, and gravel formed the delta of the Mendenhall Wetlands, the upper part of which was an extensive grassland, now largely occupied by the airport, businesses, houses, and a four lane highway. From the supra-tidal grassland to the bare mud of the sub-tidal area the vegetative habitats can best be described in terms of plant communities and major physical features. Little vascular vegetation occurs below the 10-foot tide level because of prolonged saltwater inundation. Mats of algae and kelp (Fucus) occur on the otherwise bare mudflats and rocks exposed at low tide.

Watson (1979) conducted a survey of wetland vegetation communities on the refuge. Although now dated due to rapid successional changes, the information is presented in this inventory as a point of reference.

The following communities were documented:

Sedge meadow. This community is the most extensive on the refuge occuring between the 10 and 20 foot elevation on wet, silty to silty-sandy soils. The sedge Carex Lyngbyaei (the most dominant sedge), C. aquatilis, C. kelloggii, and C. pluriflora are found in colonies across the meadows. Solid stands of sedge are found in areas of frequent inundation. Other plants in this community include Eleocharis acicularis, Puccinellia nutkaensis, (bordering sloughs); Triglochin maritimum, Potentilla anserina (at slightly higher elevations); and at areas of minimal saltwater some grasses were found (Deschampsia, Calamagrostis, and Agrostis sp.).

Plantago-Glaux-Carex. This community can withstand as much saltwater as the sedge meadow type, but occurs on sandier soils. The species in this community include P. maritima juncoides, G. maritima and Carex sp.

Beach-rye. This community occurs on sandy soils at higher elevations. Beach rye (Elymus Arenarius mollis), the dominant plant, offers both wind protection and soil stabilization due to coarse culms, dense growth, and thick root stalks. Other species then invade places such as the sand islands and include willow, alder, and Sitka spruce (Salix and Alnus sp. and Picea sitchensis). Additional plants in such locations include Achillea lanulosa, Epilobium angustifolium, Fragaria chilonsis, Honckenya sp., Lathyrus maritimus, Lupinus nootkatensis, Rubus arcticus, and Senecio pseudo-Arnica.

Spruce-hemlock forest. This community is found on rock outcroppings on the refuge which reach elevations of 60 feet. The spruce and hemlock (Tsuga heterophllya) comprise the overstory for a wide variety of shrubs and forbs. This community surrounds most of the refuge.

Upland marsh/transition. This community lies between sedge meadow and spruce-hemlock forest and is characterized by slight saltwater influence and high plant species diversity. Species composition includes Alnus, Carex, Ranunculus and Salix sp., Angelica lucida, Aquilegia formosa, Caltha palustris, Equisetum arvense, Eriophorum russeolum, Heracleum lanatum, Lingusticum scoticum, Populus balsamifera, Potentilla Egedii grandis, and Sanguisorba stipulata.

Shallow pond. This community is dominated by ponds between several inches to over two feet in depth. Pond borders support Puccinellia nutkaensis/sedge meadow. Aquatic plants include Hippuris vulgaris, Potamogeton filiformis, and Ruppia sp.

Deep pond. This type is man made (only one, at Fish Creek, is actually within refuge boundaries) and supports some freshwater aquatics.

Other habitat types include mudflats, rocky shoreline, and open saltwater, but include little in the way of vegetation.

In time, as more silt is deposited from the glacial rivers and isostatic rebound causes refuge lands to rise, a change from the dominant intertidal habitat types to supratidal conditions may occur. Thus the value of the refuge may gradually shift away from waterfowl to species more dependant on upland habitat types.

A complete list of plant species known to occur on the refuge is included as Table 1.

Amphibians

The only amphibian that occurs within the boundaries of the Mendenhall Refuge is the western toad (Bufo boreas).

Birds

At least 227 species of birds have been observed within and adjacent to the Mendenhall Wetlands State Game Refuge (Table II) (M. Pete Isleib, pers. comm.). Spring migrations peak in April and May and, by June, most waterfowl and shorebirds that stopped to feed have moved on to more northern breeding grounds.

Arctic terns nest on dredge spoil islands in Gastineau Channel near the airport. Few waterfowl and shorebirds nest on the refuge. Most summer visitors, notably non-breeding waterfowl, concentrate in feeding and loafing areas. Species found to be common summer residents include the mallard, bald eagle, spotted sandpiper, mew gull, glaucous-winged gull, arctic tern, marbled murrelet, rufous hummingbird, tree swallow, barn swallow, northwestern crow, ruby-crowned kinglet, orange-crowned warbler, yellow warbler, and Savannah, song, and Lincoln's sparrows.

After the breeding season, the refuge supports birds travelling south to winter habitats. Shorebirds, feeding on mollusks and other invertebrates, begin arriving in late July. Ducks and geese begin to arrive in late August, feeding on seeds from sedges, grasses, and other plants.

While the refuge is one of the few major concentration areas for water birds in Southeast Alaska, most of this concentration occurs in the winter. Ten of the 20 most abundant birds in the area are waterfowl, with surf scoters having the greatest average abundance of all species. Other abundant species include gulls and crows, followed by shorebirds and bald eagles. Mallards are the most common dabbling duck. Most of the world's population of Vancouver Canada geese remains in southeast Alaska year round, with 500 to 1,000 utilizing the refuge in winter. As reported in "Bird Use of the Mendenhall Wetlands in Juneau, Alaska," (1988) "The Mendenhall Wetlands may possess unique characteristics that make them particularly attractive to Vancouver Canada geese. Among 70 large, wetland/tideflat areas surveyed for geese in northern southeast Alaska in March, more geese were found on the Mendenhall Wetlands than on all but one other location. This emphasizes the regional importance of the Mendenhall Wetlands to Vancouver Canada geese." Mallards, Barrow's goldeneyes, bufflehcads, and common mergansers are other waterfowl species commonly found wintering on the refuge. Other common winter residents include the bald eagle, rock sandpiper, glaucous-winged gull, marbled murrelet, northwestern crow, dark-eyed junco, and the common redpoll.

Avian Habitats and Use of Refuge Habitats

A recently completed study, "Bird Use of the Mendenhall Wetlands" (USFWS, 1988), identifies high goose use of wetlands and tideflats between Lemon Creek and the eastern end of the airport and from the floatplane basin to the Mendenhall Peninsula. High mallard use was also found within the same area. Bufflehead were found on waters of the refuge throughout. Scaup favored the floatplane basin, and loons and grebes occurred in greatest numbers along Douglas Island shoreline just east of the North Douglas Boat Ramp. High numbers of gulls and diving ducks were found between Salmon Creek and Lemon Creek and in the Mendenhall Peninsula/Fritz Cove area. "Bird Use of the Mendenhall Wetlands in Juneau, Alaska" provides an excellent survey of bird use on the refuge and is recommended as the latest, most definitive work on the subject.

The following information is taken from Watson, 1979 and is useful in correlating bird use with various habitat types.

Sedge Meadow. This community is heavily used by waterbirds at various tidal stages. Dabbling ducks, Canada geese, and shorebirds concentrate feeding efforts here at the tideline, and by 3/4 incoming tide Carex, Puccinellia, and Eleocharis are fed upon. Migrating raptors, plovers, pipits, and longspurs also use these habitats for feeding.

The high marsh areas of the sedge meadow community are used by common snipe for nesting, especially in saturated soils. The northwestern crow, American robin, Savannah sparrow, Lincoln's sparrow, song sparrow, and red-winged blackbird also use these areas.

Plantago-Glaux-Carex. Vancouver Canada geese graze on Plantago in April through June. Additionally, snow geese and white-fronted geese graze and rest in this community during spring migration.

Beach-rye. Birds are provided protection from the wind and rising tide on the sand islands covered with Elymus. Birds using this community include the American kestrel, northern harrier, several species of sandpipers, the short-eared owl, American robin, water pipit, and Savannah sparrow. Sparrows, arctic terns, and semi-palmated plovers use the islands for nesting sites. Arctic terns are also known to nest on sandy banks along the airport runway.

Spruce-hemlock forest. This community is used for nesting by bald eagles. Such sites also offer perch locations for eagles, crows, and ravens. Species found on the spruce islands include rufous hummingbird, Stellar's jay, several species of thrushes and warblers, and other representatives of the passerines.

Upland marsh/transition. Avian occupants of this mixed habitat type include a variety of species found in other communities. High insect concentrations are found here, fed upon by

birds nesting in adjacent habitats. Birds present include great blue heron, yellowlegs, dowitcher, common snipe, warblers (yellow, Wilson's, orange-crowned, and yellow-rumped), sparrows (Savannah, Lincoln's, and song) red-winged blackbird, northwestern crow, and American Robin.

Shallow ponds. Small pools support aquatic plants (primarily Ruppia sp.) and fish which provide food for various bird species, including herons, arctic terns, kingfishers, dabbling ducks, and shorebirds. Ducks and geese will use such ponds for loafing and feeding.

Deep pond. Diving ducks and mergansers use the Fish Creek pond heavily during migration. Vancouver Canada geese will use the pond for loafing and preening sites.

Rock. Rocky areas which are sometimes inundated by salt water are used by eagles, crows, and ravens for resting and as vantage points for watching for prey along shore or in the water. Shorebirds and harlequin ducks commonly use rocky areas at high tides for loafing sites.

Mudflats. Mouths of sloughs and freshwater sources are often-used feeding sites for migrating shorebirds and waterfowl. Fritz Cove is a high-use area for water birds. The Lemon Creek and Salmon Creek areas are also concentration areas for feeding waterbirds. Other species that use the mudflats include gulls and terns. Dabbling ducks feed along the edge of incoming tides.

Open saltwater. Low tides of Gastineau Channel attract diving ducks and sea birds. Goldeneyes, scoters, and buffleheads are common waterfowl, while loons, grebes, marbled murrelets, and pigeon guillemots are representative sea birds. As noted above, Fritz Cove and the mouth of Salmon Creek attract large numbers of birds year round, probably due to an abundance of rich food resources.

Mammals

The location of the Mendenhall Refuge, being virtually surrounded by the community of Juneau, precludes it from being outstanding large terrestrial mammal habitat. However, some species do occur here that are either occasional visitors or are able to live in close proximity to man.

The two largest land mammals that occur on the wetlands, the Sitka black-tailed deer and the black bear, fall into the category of occasional visitors. Deer winter close to saltwater, especially in years with deep snow. Some does may fawn in the coniferous beach fringe adjacent to or within refuge boundaries.

Shortly after leaving their dens, black bears often prefer to move to intertidal grassflats where vegetation provides nourishment. Because major highways must be crossed from either north Douglas Island or the Juneau mainland, these forays from the surrounding mountains are likely of short duration.

Furbearing species on the refuge include muskrat, land otter, mink, and short-tailed weasel. Little is known about the abundance of these species. The muskrat, otter, and mink are associated with freshwater aquatic habitats, feeding on vegetation (the primary food of the muskrat), invertebrates, and fish. Mink travel along streams and sloughs, feeding on fish, invertebrates and small rodents. Otter and mink also frequent shoreline and intertidal habitats in search of food.

Other terrestrial mammals known to occur in the area are the snowshoe hare, red squirrel, deer mouse, porcupine, hoary marmot, little brown bat, long-tailed vole, and masked shrew. Hares occupy brushy areas, feeding on grasses and twigs, buds, and leaves of willow and spruce. Red squirrels occur in groves of spruce where they feed on seeds and nest in the trees. The brown bat roosts in hollow trees and feeds on insects during night hours. The vole feeds on grasses, bulbs, and small twig bark in brushy streambank areas and shrews feed on insects.

The only common marine mammal documented within refuge boundaries is the harbor seal. Seals may occasionally use the sand islands as haulouts and forage on benthic invertebrates and finfish found in the area. Northern sea lions and humpback whales occur infrequently within the refuge boundaries as well. Humpback whales have been sighted feeding in Fritz Cove.

Fish

Marine and anadromous fish are found within the boundaries of the refuge, while freshwater and anadromous species are found in waterways that flow into the estuary. Table III records some of the representative species known to occur within the refuge.

Five species of salmon, two species of trout, and two species of char are found within the refuge and in freshwater systems draining into the refuge as well. Life history stages of spawning, feeding, egg to fry incubation, rearing, and migration to and from salt water habitats occur on the refuge.

Seventeen freshwater systems flow into the refuge. Following is a description of these systems and their fish resources.

Casa Del Sol Creek (Pederson Hill Creek) This stream originates on Pederson Ridge and enters saltwater in Fritz Cove. In the intertidal wetlands portion (over one mile long) this stream averages 3-5 feet wide and 1-3 feet deep. This meandering system is clear with the brownish tint of a muskeg drainage.

Coho salmon, cutthroat trout, Dolly Varden char, and coast range sculpin are found here, with starry flounders and staghorn sculpins rearing in the lengthy intertidal area. The meanders, pools, and overhanging grass banks of the wetlands provide excellent rearing habitat.

Mendenhall River This largest system entering MWSGR, which is glacially occluded, flows five miles from Mendenhall Lake to Fritz Cove. Major tributaries include Montana and Duck creeks.

Because of high human populations in the valley, the Mendenhall River has received considerable alteration. Gravel has been mined along several of the river bars and near the river's mouth. In some areas, banks of the river have been stabilized with rip-rap to control erosion. Domestic sewage, residential runoff, and industrial wastes have been introduced into the river.

Populations of coho, pink, chum, and sockeye salmon, Dolly Varden char, cutthroat, and rainbow/steelhead trout are found in the Mendenhall. Eulachon are found in the lower river in the spring. Up to 15,000 salmon and 30,000 Dolly Varden use the Mendenhall for a migration route annually. The upper Mendenhall River provides cohos with spawning gravel and a significant amount of rearing habitat for coho juveniles is found throughout its length. Mendenhall Lake is thought to be an important wintering area for Dolly Varden char.

Duck Creek This system flows into the Mendenhall River directly upstream from the

Juneau International Airport. Duck Creek measures 5-15 feet wide and 1/2 foot to 2 feet deep. The creek is characterized by an orange color caused by the extraction of the streambed's gravel, which exposed iron deposits then affected by an iron-fixing bacteria.

Fish species present include pink, chum, and coho salmon, Dolly Varden char, and cutthroat trout. Escapements as high as 10,000 chum salmon were recorded for this system. Coho salmon, brook trout, and rainbow trout have been stocked in this system over the years.

Due to developments in the Mendenhall Valley, Duck Creek has been subjected to severe habitat degradation; however, viable populations of fish still exist in the system.

Jordan Creek This creek runs about three miles through the eastern Mendenhall Valley and enters Gastineau Channel via a culvert under the Juneau International Airport's runway. This spring fed creek measures 5-50 feet in width and 4 inches to 3 feet deep. A pool/riffle complex throughout the length of Jordan Creek provides good spawning and rearing habitat.

Coho, chum, and pink salmon, Dolly Varden char, and cutthroat trout occur naturally, and brook trout have been stocked in the system. Escapements of over 300 coho salmon have been recorded in recent years.

West Creek This small stream flows from Heintzleman Ridge/ Thunder Mountain and enters Gastineau Channel east of Sunny Point. Four feet wide and 1/2 foot deep, this stream drains about one square mile. Two major highway crossings and residential developments have reduced the quality of the stream.

Pink and coho salmon and Dolly Varden char are located in this stream. Pinks spawn intertidally, but habitat for rearing species is limited. A long intertidal area is used by juvenile estuarine and pelagic species.

East Creek This small stream flows from Heintzleman Ridge and through Switzer Creek Trailer Court before entering Gastineau Channel east of Sunny Point. The clear water averages 5 feet wide and 2-8 inches in depth.

Populations of coho and pink salmon and Dolly Varden char occupy the stream. The long intertidal area provides not only pink salmon spawning gravel but an excellent nursery area for anadromous and pelagic species. Coho spawn in limited upstream locations, but the overall rearing potential is low.

Switzer Creek This 2-15 foot wide creek enters Gastineau Channel east of Sunny Point and has depths up to 2-1/2 feet. A gravel streambed predominates, with an intertidal zone that is 1/2 mile long. The entire length of the system has excellent rearing habitat. Pinks and chums spawn lower in the system while cohos spawn above Glacier Highway.

Two major highway crossings towards the mouth, subdivision runoff, and a logging operation have introduced sediment into the channel of Switzer Creek.

Switzer Creek has populations of coho, pink, and chum salmon, Dolly Varden char, and cutthroat trout. Staghorn sculpin and starry flounder occupy the intertidal area. Over 1,000 Dolly Varden and escapements of about 400 salmon have been documented here.

Lemon Creek Lemon Creek flows through a major industrial/residential area, draining a 25-square-mile watershed. The glacial colored water (except in winter, spring, and mornings in summer when it flows clear) measures 30-50 feet wide and 1-3 feet deep. The streambed is primarily gravel. Gravel was extracted from the bed of Lemon Creek for many years.

Pink, chum, and coho salmon, and Dolly Varden char occur in this system. Over 1,500 spawning salmon have been recorded in the system in recent years and provide an important food source for bald eagles.

Vanderbilt Creek This small creek enters the channel just east of Lemon Creek into a 1/2-mile-long intertidal area. The clear, brownish tinted water ranges from 4-8 feet wide and 1/2-4 feet deep. A large gravel pit and two industrial areas have introduced sediment into the system, reducing spawning and rearing values.

Dolly Varden char and pink, chum, and coho salmon occur in the stream. Escapements of over 50 salmon have been recorded recently.

Salmon Creek This stream drains a 9-square-mile watershed and enters Gastineau Channel at the northeastern corner of the refuge. A barrier falls to fish movement is found 1/8 mile above tidewater. The clear water stream in this area is 30 feet wide and 1-1/2 feet deep. While good spawning habitat occurs in the lower stream, pools needed for optimal rearing conditions are absent.

Salmon Creek has been impacted by gravel removal below the highway in the early 1970s, bridge construction from Glacier Highway, and Egan Drive construction projects. Fluctuations in streamflow have been caused by the reservoir's draw for power generation needs.

Coho, pink, and chum salmon, Dolly Varden char, and brook trout occur in this stream. A salmon hatchery was operated on the lower stream for a few years, and as a result, escapements as high as 27,000 pink, 15,000 chum, and 2,600 coho have been documented in recent years. A new hatchery, using water from Salmon Creek, is being constructed at the Alaska Electric Light and Power Tailrace.

Falls Creek This system is 5 to 12 feet wide, 6 to 12 inches deep and enters Gastineau

Channel at mile 3.5 on the North Douglas Highway. The clear water contains Dolly Varden char and cutthroat trout. Most spawning/rearing areas are between the highway and tidewater.

Neilson Creek North Douglas Highway crosses this creek at mile 3.3, where the system measures 5-12 feet wide. The water is clear (slightly tinted) and flows over a gravel/bedrock substrate.

Small populations of coho and pink salmon and Dolly Varden char occur here. Fish habitat values are low due to the steep gradient and a lack of pools and cover.

Hendrickson Creek This stream enters Gastineau Channel from about 5.5 mile North Douglas Highway. It is 4-5 feet wide with pools up to 2 feet deep, the water clear with a brownish tint.

Coho, pink, and chum salmon, anadromous Dolly Varden char, and resident cutthroat occur in this creek. Most spawning habitat is between the highway and the intertidal zone, while rearing areas occur throughout the creek.

Johnson Creek Johnson Creek crosses the North Douglas Highway at about mile 6.5, measures 5-8 feet wide, and has pools to 2 feet deep. The clear water flows for its lower 1-1/4 mile through grasslands adjacent to Gastineau channel. The long intertidal area and the balance of the area below the highway crossing are excellent spawning grounds. The intertidal zone also provides good rearing habitat due to many pools and undercut banks.

Stocks of coho, pink and chum salmon, cutthroat trout, and Dolly Varden char are documented in this stream. Records of several hundred spawning salmon have been made for the stream.

Nine-Mile Creek Nine-Mile Creek on North Douglas Island is about 3 feet wide at the highway and has pools 12 inches deep. The clear, brown tinted water flows over gravel in the upper stretches with mud and silt dominating the lower reaches. The lower 1/2 mile flows through grassy meadows which provide excellent rearing cover. The long intertidal zone provides excellent rearing areas for juvenile marine species and emigrating salmonids. The upper intertidal area provides the bulk of the stream's spawning areas.

Coho and chum salmon, Dolly Varden char, and cutthroat trout occur in this system in small numbers.

Fish Creek The Fish Creek watershed on Douglas Island, some 14 square miles, is the third largest drainage entering MWSGR. The clear water has numerous good pools for two and one-half miles above tidewater. Spawning habitat is excellent in the lower 1/4 mile and good for another two and one-quarter miles upstream.

Coho, pink, and chum salmon, Dolly Varden char, and cutthroat trout occupy this stream. Escapements as high as 28,000 pink, 5,400 chum, and 50 coho have been recorded for Fish Creek. This stream is a favorite for local anglers and supports the largest natural stock fishery in the area.

A portion of the intertidal zone was filled during North Douglas Highway construction in the early 1970s. Construction of the Eaglecrest Road (1974-76) saw the introduction of sediment into the system, some of which likely found its way to the flats. Since 1985, an old gravel pond at the mouth of the stream has been used as a release site for hatchery-reared king and coho salmon smolts.

Cove Creek Cove Creek enters Fritz Cove at mile 9.4 on the North Douglas Highway at the southwest corner of the Mendenhall Refuge. The stream has a steep gradient and a barrier falls to fish movement is found at tidewater. Resident fish may be present above the falls, but this system has not been surveyed due to its small size and steep gradient.

Marine Invertebrates

Many marine invertebrates are found in various habitats within Mendenhall Wetlands State Game Refuge. A list of some of the representative invertebrate fauna is included as Table V.

HUMAN USE OF FISH AND WILDLIFE

Mendenhall Wetlands State Game Refuge is popular for many human uses, including waterfowl hunting, sport fishing, personal use crabbing, boating, wildlife viewing and photography, wetland studies, and hiking. Each year the school district conducts "Seaweek" activities and classes on the refuge. A U.S. Fish and Wildlife Service (USFWS) study documented the dike trail adjacent to the float plane pond receiving the highest amount of recreational use of the refuge. It has been suggested that the Mendenhall Refuge may be the most heavily used non-consumptive recreational use area in southeast Alaska.

Following is a summation of some of the uses of the refuge.

Waterfowl Hunting

Waterfowl hunting is specifically mentioned in the legislation creating the Mendenhall refuge as a human use that is to be maintained and is the only hunting allowed on the refuge. Although surrounded by the communities of Auke Bay, Douglas, and Juneau, a considerable amount of recreational duck and goose hunting takes place within refuge boundaries. An average of four percent of both the statewide hunting effort and the duck harvest takes place on the refuge. An estimated 25 percent of all southeast Alaska duck

hunter days are spent on the refuge and 25 percent of all ducks harvested in southeast Alaska come from the Mendenhall flats. Canada geese may be displaced from the refuge by hunting pressure.

The following figures, from ADF&G Survey and Inventory Reports, describe waterfowl hunting on Mendenhall wetlands:

Year	Hunter Days		Duck Harvest		Goose Harvest	
	#	(%)*	#	(%)	#	(%)
1971	2813	(6.3)	3010	(3.6)	113	(1.0)
1972	5600	(9.4)	4585	(5.0)	671	(6.0)
1973	2720	(4.7)	2238	(2.5)	74	(0.4)
1974	4346	(8.1)	3447	(4.8)	133	(1.0)
1975	2851	(5.0)	3864	(4.4)	280	(1.5)
1976	1871	(2.8)	3163	(3.1)	130	(0.9)
1977	no data		4290	(4.1)	no data	
1978	" "			(4.2)	" "	
1979	" "			(5.5)	(7.7)	
1980	" "		7882	(8.2)	313	(2.4)
1981	" "		no data		no data	
1982	" "		" "	" "		
1983	2127	(2.8)	3832	(3.1)	367	(2.5)
1984	1977	(2.6)	1829	(1.8)	61	(0.4)
1985	2175	(4.1)	3265	(4.1)	90	(1.0)

* (% of state wide harvest)

Trapping

Trapping is prohibited within 1/4 mile of both the Egan Expressway and the North Douglas Highway. Thus, trapping is illegal within almost the entire Mendenhall Wetlands State Game Refuge. No records are known of historic trapping on the refuge

Fishing

No commercial or subsistence fisheries occur within the refuge boundaries, but a personal use fishery for tanner, king, and dungeness crab exists in Fritz Cove. Also, some limited clamming occurs within MWSGR. Recent regulations stipulate that residents of Juneau do not qualify as subsistence users. Sport fishing for salmonids and halibut takes place on the refuge.

Wildlife Viewing/Photography

The most common human activities (as determined by one study in the float plane pond area) were walking (often with dogs), running, and wildlife viewing. This study estimated 17,158 "people use events" (one person using the area for any recreational pursuit for any portion of one day) annually.

OTHER ACTIVITIES ON THE REFUGE

Boating

Boating, fishing, hunting, etc., being activities that generally last longer than other pursuits, were found (in the USFWS study) to provide 4,555 people use events annually. Sailing, sailboarding, access for sport and commercial fishing vessels to and from harbors and fishing grounds, and even limited water skiing and windsurfing take place on the refuge. The use of power boats launched from outside refuge boundaries is the only authorized public use of motorized vehicles within the refuge.

Hiking

The refuge is bordered by the Egan Expressway on the north and the North Douglas Highway on the south. While maintained trails do not exist on MWSGR, some of the upland areas and many of the upper high tide areas provide excellent locations for walking. Access to the refuge includes: 1) Mendenhall Peninsula, 2) the end of Engineer's Cutoff Road, 3) Industrial Boulevard, 4) the airport dike, 5) Sunny Point Drive, 6) Switzer Creek, 7) the refuge viewing platform at mile 6 Egan Expressway, 8) Twin Lakes, 9) Salmon Creek at mile 3 Egan Expressway, 10) Nine Mile Creek Road, 11) Nine Mile Creek, 12) Fish Creek at 8.5 mile North Douglas Highway, and 13) Cove Creek at 9.5 mile North Douglas Highway. There is also access potential at Johnson Creek; however, off-road parking is not currently available.

Grazing

While grazing of domestic livestock is not addressed in the enabling legislation, several

horses are kept by local residents adjacent to the refuge. These animals are at times turned free without the required permit from the state to roam and subsequently enter the refuge and graze on grasses and forbs.

Marine Navigation

Gastineau Channel provides an important transportation link for both sport and commercial fishing vessels from downtown Juneau and Douglas harbors to Stephens Passage to the east and Auke Bay/Tee Harbor anchorages and Lynn Canal to the west. The U. S. Coast Guard maintains a series of navigational aids to assist local mariners in navigating the channel, which is passable to most small craft and mid-size commercial vessels at a 14-foot or higher tide.

Material Extraction

Several areas within the refuge boundaries have been sources of gravel extraction. Gravel has been mined from Fish Creek and the Mendenhall River for road, runway, and other construction projects.

Lemon Creek currently has a logging operation at the upper portion of the watershed. This may be introducing silt and other contaminants into the estuarine areas of the refuge as well as affecting streamflows.

Utilities

Alaska Electric Light and Power Company operates a hydroelectric station which draws its power from the Salmon Creek dam. This facility is located off refuge lands, and permits require minimum stream flows to prevent adverse effects during periods of low natural flows.

Airport/Highways

The Mendenhall wetlands comprised approximately 6,000 acres prior to developments such as airport construction, road building, and residential expansion. While no highways actually cross refuge lands, North Douglas Highway, Glacier Highway, and Egan Expressway have all had impacts on the wetlands. Each project reduced the amount of land available for wildlife habitat, while construction of these roads has introduced inorganic materials onto the flats.

The construction of the Juneau International Airport also reduced wetlands acreage. Ponds created by dredging for the float plane pond increased loafing areas for waterfowl in an area that airport officials now feel may conflict with aircraft safety.

Land Status and Aquisition

All lands within the Mendenhall Wetlands State Game Refuge, except for City/Borough of Juneau lands or approved accretion claims, are owned by the State of Alaska. The Department of Natural Resources maintains management authority of water and the surface/subsurface resources, while the Department of Fish and Game is responsible for managing the fish and wildlife resources, their habitats, and human use of the refuge.

INFORMATION NEEDS

Because of the relative small size of this refuge and its proximity to a population center, occurance of many bird and mammal species are generally well documented on the refuge. However, very little fish and marine invertebrate information has been documented and very little is known about ecological relationships. Information on the following topics could assist in better understanding the Mendenhall Refuge.

Waterfowl

- Determination of the role of hunting and other human disturbance in displacement of Vancouver Canada geese and other waterfowl from the refuge.
- Delineation of duck breeding habitat and evaluation of the practicality of enhancing it.
- Investigation of food habits of waterfowl on the refuge.
- Investigation of waterfowl enhancement opportunities on the refuge.
- Analysis of lead shot ingestion rates in mallards and pintails.

Other birds

- Census of the Arctic tern breeding colony.

Furbearers

- Population estimate of furbearing species on the refuge.

Fish

- Determine importance of refuge to feeding and rearing salmonids and other species including sticklebacks, sculpins, and sand lance.

Marine Invertebrates

- Inventory marine invertebrate species found within the refuge.

Human Use

- Determine impacts of domestic animals (i.e., dogs and cats) on wildlife species.

Water Quality

- Determine water quality on the refuge and identify any problems.

Table I. MENDENHALL WETLANDS STATE GAME REFUGE PROVISIONAL PLANT LIST
taken from Watson (1979)

FAMILY AND SPECIES REPRESENTED

Algae
- Fucus sp.

Arrow grass
- Seaside arrow grass (Triglochin maritima)

Birch
- Sitka alder (Alnus crispa)
- Red alder (Alnus oregana)

Buckwheat
- Garden dock (Rumex longifolius)
- Sheep sorrel (Rumex acetosella)

Aster
- Achillea lanulosa
- Arctic daisy (Chrysanthemum arcticum)
- Dandelion (Taraxacum officinale)
- Northern Yarrow (Achillea borealis)
- Ox-eye daisy (Chrysanthemum leucanthemum)
- Pineapple weed (Matricaria matricarioides)
- Senecio pseudo-Arnica

Crowfoot
- Ranunculus cymbalaria
- Ranunculus occidentalis
- Yellow marsh-marigold (Caltha palustris)
- Western columbine (Aquilegia formosa)

Ditchgrass
- Ruppia sp.

Evening primrose
- Fireweed (Epilobium angustifolium)
- Northern willow-herb (Epilobium adenocaulon)

Figwort
- Indian paintbrush (Castilleja unalaschcensis)
- Yellow rattle (Rhinanthus minor)

Gentian
- Star gentian (Lomatogonium rotatum)

Goosefoot
- Gmelin saltweed (Atriplex gmelini)

Grasses
- Beach rye (Elymus arenarius mollis)
- Bent grass (Agrostis sp.)
- Deschampsia sp.
- Hordeum brachyantherum
- Pacific alkaligrass (Puccinellia nutkaenis)
- Reed bent grass (Calamagrostis sp.)
- Squirreltail grass (Hordeum jubatum)
- Timothy (Phleum pratense)

Horsetail
- Meadow horsetail (Equisetum arvense)

Madder
- Cleavers (Galium aparine)

Mustard
- Scurvy grass (Cochlearia officinalis)
- Thlaspi arcticum

Parsley
- Angelica genuflexa
- Angelica lucida
- Beach Lovage (Ligusticum scoticum)
- Cow parsnip (Heracleum lanatum)
- Hemlock parsley (Conioselinum chinense)
- Poison hemlock (Cicuta douglasii)

Pea
- Beach pea (Lathyrus maritimus)
- Nootka lupine (Lupinus nootkatensis)
- White clover (Trifolium repens)

Pine
- Sitka spruce (Picea sitchensis)
- Western hemlock (Tsuga heterophylla)

Pink
- Larger mouse-ear chickweed (Cerastium fontanum)
- Low chickweed (Stellaria humifusa)
- Sand spurry (Spergularia canadensis)

Seabeach sandwort (Honckenya peploides)

Plaintain
- Common plaintain (Plantago major)
- Goose-tongue (Plantago maritima juncoides)

Potamogeton
- Filiform pondweed (Potamogeton filiformis)

Primrose
- Sea milkwort (Glaux maritima)
- Pretty shooting star (Dodecatheon pulchellum)

Rose
- Beach strawberry (Fragaria chiloensis)
- Common silverweed (Potentilla anserina)
- Mountain ash (Sorbus sp.)
- Nagoon berry (Rubus arcticus)
- Pacific silverweed (Potentilla egedii grandis)
- Sitka burnet (Sanguisorba stipulata)
- Large-leaved avens (Geum macrophyllum)

Rush
- Juncus arcticus

Saxifrage
- Northern grass-of-Parnassus (Parnassia palustris)

Sedge
- Carex kelloggii
- Carex lenticularis
- Lyngbye sedge (Carex lyngbyaei)
- Many-flowered sedge (Carex pluriflora)
- Needle spikerush (Eleocharis acicularis)
- Russet cottongrass (Eriophorum russeolum)
- Water sedge (Carex aquatilis)

Water milfoil
- Common marestail (Hippurus vulgaris)

Willow
- Black cottonwood (Populus balsamifera)
- Salix Barclayi
- Salix sitchensis
- Salix sp.

Table IL MENDENHALL WETLANDS STATE GAME REFUGE PROVISIONAL BIRD LIST
(pers. comm. Pete Islieb and Bob Armstrong)

Loons: Gaviidae
- Red-throated loon (Gavia stellata)
- Pacific loon (Gavia pacifica)
- Common loon (Gavia immer)
- Yellow-billed loon (Gavia adamsii)

Grebes: Podicipedidae
- Horned grebe (Podiceps auritus)
- Red-necked grebe (Podiceps grisegena)
- Western grebe (Aechmophorus occidentalis)

Petrels: Hydrobatidae
- Fork-tailed storm petrel (Oceanodroma furcata)

Cormorants: Phalacrocoracidae
- Double-crested cormorant (Phalacrocorax auritus)
- Pelagic cormorant (Phalacrocorax pelagicus)

Herons: Ardeidae
- Great blue heron (Ardea herodias)
- Snowy egret (Egretta thula)
- Green-backed heron (Butorides striatus)
- Black-crowned night heron (Nycticorax nycticorax)

Ducks, geese, swans: Anatidae
- Tundra swan (Cygnus columbianus)
- Trumpeter swan (Cygnus buccinator)
- Greater white-fronted goose (Anser albifrons)
- Snow Goose (Chen caerulescens)
- Emperor goose (Chen canagica)
- Brant (Branta bernicla)
- Vancouver Canada goose (Branta canadensis fulva)
- Cackling Canada goose (Branta canadensis minima)
- Lesser Canada goose (Branta canadensis parvipes)
- Wood duck (Aix sponsa)
- Green-winged teal (Anas crecca)
- Mallard (Anas platyrhynchos)
- Northern pintail (Anas acuta)
- Blue-winged teal (Anas discors)
- Cinnamon teal (Anas cyanoptera)
- Northern shoveler (Anas clypeata)
- Gadwall (Anas strepera)
- Eurasian wigeon (Anas penelope)
- American wigeon (Anas americana)
- Canvasback (Aythya valisineria)
- Redhead (Aythya americana)
- Ring-necked duck (Aythya collaris)
- Greater scaup (Aythya marila)
- Lesser scaup (Aythya affinis)

King eider (Somateria spectabilis)
Steller's eider (Polysticta stelleri)
Harlequin duck (Histrionicus histrionicus)
Oldsquaw (Clangula hyemalis)
Black scoter (Melanitta nigra)
Surf scoter (Melanitta perspicillata)
White-winged scoter (Melanitta fusca)
Common goldeneye (Bucephala clangula)
Barrow's goldeneye (Bucephala islandica)
Bufflehead (Bucephala albeola)
Hooded merganser (Lophodytes cucullatus)
Common merganser (Mergus merganser)
Red-breasted merganser (Mergus serrator)

Hawks, eagles, harriers: Accipitridae
Osprey (Pandion haliactus)
Bald eagle (Haliaeetus leucocephalus)
Northern harrier (Circus cyaneus)
Sharp-shinned hawk (Accipiter striatus)
Northern goshawk (Accipiter gentilis)
Red-tailed hawk (Buteo jamaicensis)
Rough-legged hawk (Buteo lagopus)
Golden eagle (Aquila chrysaetos)

Falcons: Falconidae
American kestrel (Falco sparverius)
Merlin (Falco columbarius)
Peregrine falcon (Falco peregrinus)
Gyrfalcon (Falco rusticolus)

Grouse, ptarmigan: Phasianidae
Blue grouse (Dendragapus obscurus)
Rock ptarmigan (Lagopus mutus)

Coots: Rallidae
Yellow rail (Coturnicops noveboracensis)
Sora (Porzana carolina)
American coot (Fulica americana)

Cranes: Gruidae
Sandhill crane (Grus canadensis)

Plovers: Charadriidae
Black-bellied plover (Pluvialis squatarola)
Lesser golden plover (Pluvialis dominica)
Semipalmated plover (Charadrius semipalmatus)
Killdeer (Charadrius vociferus)

Oystercatchers: Haematopodidae
Black oystercatcher (Haematopus bachmani)

Sandpipers: Scolopacidae
Greater yellowlegs (Tringa melanoleucus)
Lesser yellowlegs (Tringa flavipes)

Solitary sandpiper (Tringa solitaria)
Wandering tattler (Heteroscelus incanum)
Spotted sandpiper (Actitis macularia)
Upland sandpiper (Bartramia longicauda)
Whimbrel (Numenius phaeopus)
Hudsonian godwit (Limosa haemastica)
Bar-tailed godwit (Limosa lapponica)
Marbled godwit (Limosa fedoa)
Ruddy turnstone (Arenaria interpres)
Black turnstone (Arenaria melanocephala)
Surfbird (Aphriza virgata)
Red Knot (Calidris canutus)
Sanderling (Calidris alba)
Semipalmated sandpiper (Calidris pusilla)
Western sandpiper (Calidris mauri)
Least sandpiper (Calidris minutilla)
Baird's sandpiper (Calidris bairdii)
Pectoral sandpiper (Calidris melanotos)
Sharp-tailed sandpiper (Calidris acuminata)
Rock sandpiper (Calidris ptilocnemis)
Dunlin (Calidris alpina)
Short-billed dowitcher (Limnodromus griseus)
Long-billed dowitcher (Limnodromus scolopaceus)
Common snipe (Gallinago gallinago)
Wilson's phalarope (Phalaropus tricolor)
Red-necked phalarope (Phalaropus fulicaria)

Gulls, terns: Laridae
Parasitic jaeger (Stercorarius parasiticus)
Bonaparte's gull (Larus philadelphia)
Mew gull (Larus canus)
Ring-billed gull (Larus delawarensis)
California gull (Larus californicus)
Herring gull (Larus argentatus)
Thayer's gull (Larus thayeri)
Glaucous-winged gull (Larus glaucescens)
Glaucous gull (Larus hyperboreus)
Black-legged kittiwake (Rissa tridactyla)
Caspian tern (Sterna caspia)
Arctic tern (Sterna paradisaea)

Alcids: Alcidae
Common murre (Uria aalge)
Pigeon guillemot (Cepphus columba)
Marbled murrelet (Brachyramphus marmoratus)
Kittlitz's murrelet (Brachyramphus brevirostris)
Ancient murrelet (Synthliboramphus antiquus)

Pigeons, doves: Columbidae
Rock dove (Columba livia)
Mourning dove (Zenaida macroura)

Owls: Strigidae
Western screech owl (Otus kennicottii)

Great horned owl (Bubo virginianus)
Snowy owl (Nyctea scandiaca)
Northern hawk owl (Surnia ulula)
Northern pygmy owl (Glaucidium gnoma)
Barred owl (Strix varia)
Short-eared owl (Asio flammeus)
Northern saw-whet owl (Aegolius acadicus)

Nighthawk: Caprimulgidae
Common nighthawk (Chordeiles minor)

Swifts: Apodidae
Black swift (Cypseloides niger)
Vaux's swift (Chaetura vauxi)

Hummingbirds: Trochilidae
Anna's hummingbird (Calypte anna)
Calliope hummingbird (Stellula calliope)
Rufous hummingbird (Selasphorus rufus)

Kingfishers: Alcedinidae
Belted kingfisher (Ceryle alcyon)

Woodpeckers: Picidae
Red-breasted sapsucker (Sphyrapicus ruber)
Downy woodpecker (Picoides pubescens)
Hairy woodpecker (Picoides villosus)
Three-toed woodpecker (Picoides tridactylus)
Black-backed woodpecker (Picoides arcticus)
Northern flicker (Colaptes auratus)

Tyrant Flycatchers: Tyrannidae
Olive-sided flycatcher (Contopus borealis)
Western wood-pewee (Contopus sordidulus)
Alder flycatcher (Empidonax alnorum)
Willow flycatcher (Empidonax traillii)
Least flycatcher (Empidonax minimus)
Hammond's flycatcher (Empidonax hammondii)
Say's phoebe (Sayornis saya)
Western kingbird (Tyrannus verticalis)
Western flycatcher (Empidonax difficilis)
Eastern kingbird (Tyrannus tyrannus)

Larks: Alaudidae
Horned lark (Eremophila alpestris)

Swallows: Hirundinidae
Tree swallow (Tachycineta bicolor)
Violet-green swallow (Tachycineta thalassina)
Northern rough-winged swallow (Stelgidopteryx serripennis)
Bank swallow (Riparia riparia)
Cliff swallow (Hirundo pyrrhonota)
Barn swallow (Hirundo rustica)

Jays, crows: Corvidae
- Steller's jay (Cyanocitta stelleri)
- Black-billed magpie (Pica pica)
- Northwestern crow (Corvus caurinus)
- Common raven (Corvus corax)

Chickadees: Paridae
- Black-capped chickadee (Parus atricapillus)
- Chestnut-backed chickadee (Parus rufescens)

Nuthatches: Sittidae
- Red-breasted nuthatch (Sitta canadensis)

Creepers: Certhiidae
- Brown creeper (Certhia americana)

Wrens: Troglodytidae
- Winter wren (Troglodytes troglodytes)

Dippers: Cinclidae
- American dipper (Cinclus mexicanus)

Kinglets, thrushes: Muscicapidae
- Golden-crowned kinglet (Regulus satrapa)
- Ruby-crowned kinglet (Regulus calendula)
- Mountain bluebird (Sialia currucoides)
- Townsend's solitaire (Myadestes townsendi)
- Gray-cheeked thrush (Catharus minimus)
- Swainson's thrush (Catharus ustulatus)
- Hermit thrush (Catharus guttatus)
- American robin (Turdus migratorius)
- Varied thrush (Ixoreus naevius)

Mimic-thrushes: Mimidae
- Northern mockingbird (Mimus polyglottos)

Pipits: Motacillidae
- Water pipit (Anthus spinoletta)

Waxwings: Bombycillidae
- Bohemian waxwing (Bombycilla garrulus)
- Cedar waxwing (Bombycilla cedrorum)

Shrikes: Laniidae
- Northern shrike (Lanius excubitor)

Starlings: Sturnidae
- European starling (Sturnus vulgaris)

Vireos: Vireonidae
- Warbling vireo (Vireo gilvus)

Warblers, sparrows, etc.: Emberizidae

Tennessee warbler (Vermivora peregrina)
Orange-crowned warbler (Vermivora celata)
Yellow warbler (Dendroica petechia)
Magnolia warbler (Dendroica magnolia)
Yellow-rumped warbler (Dendroica coronata)
Townsend's warbler (Dendroica townsendi)
Hermit warbler (Dendroica occidentalis)
Palm warbler (Dendroica palmarum)
Blackpoll warbler (Dendroica striata)
American redstart (Setophaga ruticilla)
Northern waterthrush (Seiurus noveboracensis)
Wilson's warbler (Wilsonia pusilla)
Western tanager (Piranga ludoviciana)
American tree sparrow (Spizella arborea)
Chipping sparrow (Spizella passerina)
Savannah sparrow (Passerculus sandwichensis)
Fox sparrow (Passerella iliaca)
Song sparrow (Melospiza melodia)
Lincoln's sparrow (Melospiza lincolnii)
White-throated sparrow (Zonotrichia albicollis)
Golden-crowned sparrow (Zonotrichia atricapilla)
White-crowned sparrow (Zonotrichia leucophrys)
Harris' sparrow (Zonotrichia querula)
Dark-eyed junco (Junco hyemalis)
Lapland longspur (Calcarius lapponicus)
Smith's longspur (Calcarius pictus)
Snow bunting (Plectrophenax nivalis)
Brown-headed cowbird (Molothrus ater)
Red-winged blackbird (Agelaius phoeniceus)
Rusty blackbird (Euphagus carolinus)
Western meadowlark (Sturnella neglecta)

Buntings, grosbeaks: Fringillidae
Brambling (Fringilla montifringilla)
Rosy finch (Leucosticte arctoa)
Purple finch (Carpodacus purpureus)
Cassin's finch (Carpodacus cassinii)
Red crossbill (Loxia curvirostra)
Pine grosbeak (Pinicola enucleator)
White-winged crossbill (Loxia leucoptera)
Common redpoll (Carduelis flammea)
Hoary redpoll (Carduelis hornemanni)
Pine siskin (Carduelis pinus)
American goldfinch (Carduelis tristis)

Table III. MENDENHALL WETLANDS STATE GAME REFUGE PROVISIONAL MAMMAL LIST

Shrews: Insectivora
- Masked shrew (Sorex cinereus)

Bats: Chiroptera
- Little brown bat (Myotis lucifugus)

Hares: Lagomorpha
- Snowshoe hare (Lepus americanus)

Mice, voles, squirrels, marmots: Rodentia
- Hoary marmot (Marmota caligata)
- Red squirrel (Tamiasciurus hudsonicus)
- Deer mouse (Peromyscus maniculatus)
- Long-tailed vole (Microtus longicaudus)
- Muskrat (Ondatra zibethicus)
- Porcupine (Erethizon dorsatum)

Whales: Cetacea
- Minke whale (Balaenoptera acutorostrata)
- Humpback whale (Megaptera nodosa)

Bear, weasels, otter: Carnivora
- Black bear (Ursus americanus)
- Short-tailed weasel (Mustela erminea)
- Mink (Mustela vison)
- River otter (Lutra canadensis)

Seals, sea lions: Pinnipedia
- Harbor seal (Phoca vitulina)
- Northern sea lion (Eumetopias jubatus)

Deer: Artiodactyla
- Sitka black-tailed deer (Odocoileus hemionus sitkensis)

Table IV: MENDENHALL WETLANDS STATE GAME REFUGE PROVISIONAL FINFISH LIST OF REPRESENTATIVE SPECIES

Common Name	Genus/Species
Rock sole	Lepidopsetta bilineata
Yellowfin sole	Limanda aspera
Flathead sole	Hippoglossoides elassodon
Starry flounder	Platichtys stellatus
Pacific staghorn sculpin	Leptocottus armatus
Prickly (coast range) sculpin	Cottus asper
Sculpins	Myoxocephalus spp.
Sculpin	Oligocottus sp.
Sculpins	Blepsias spp.
Buffalo sculpin	Enophrys bison
Spinyhead sculpin	Dasycottus setiger
Kelp greenling	Hexagrammos decagrammus
Whitespotted greenling	Hexagrammos stelleri
Walleye pollock	Theragra chalcogramma
Pacific cod	Gadus macrocephalus
Crescent gunnel	Pholis laeta
Arctic shanny	Stichaeus punctatus
Snake prickleback	Lumpenus saggita
Wolf-eel	Anarrhichthys ocellatus
Pacific spiny lumpsucker	Eumicrotremis orbis
Marbled snailfish	Liparis dennyi
Sturgeon poacher	Agonus acipenserinus
King salmon	Oncorhynchus tshawytscha
Chum salmon	Oncorhynchus keta
Coho salmon	Oncorhynchus kisutch
Pink salmon	Oncorhynchus gorbuscha
Sockeye salmon	Oncorhynchus nerka
Dolly Varden char	Salvelinus malma
Cutthroat trout	Oncorhynchus clarki
Rainbow trout/steelhead	Oncorhynchus mykiss
Searchers	Bathymaster spp.
Pacific herring	Clupea pallasii
Longnose skate	Raja rhina
Pacific halibut	Hippoglossus stenolepis
Sandlance	Ammodytes hexapterus
Sand fish	Trichodon trichodon
Capelin	Mallotus villosus
Threespine stickleback	Gasterosteus aculeatus

Table V. MENDENHALL WETLANDS STATE GAME REFUGE PROVISIONAL MARINE INVERTEBRATE LIST OF REPRESENTATIVE SPECIES

Common Name	Genus/Species
Snowflake sea star	Crossaster papposus
Sunflower sea star	Pycnopodia helianthoides
Mottled sea star	Evasterias troschellii
Sun starfish	Solaster endeca
Stimpson's sea star	Solaster stimpsoni
Dawson's sea star	Solaster dawsoni
Cushion sea star	Pteraster tesselatus
	Orthasterias koehleri
	Pteraster tesselatus
	Gephyreaster sp.
Pacific henricia	Henricia levinscula
Blood sea star	Henricia sanguinolenta
Daisy brittle star	Ophiopholis aculeata
Six armed sea star	Leptasterias epichlora
Green sea urchin	Strongtyocentrotus drochachiensis
Sea cucumber	Parastichopus sp.
Stiff-footed sea cucumber	Eupentacta quinquesemita
Orange sea cucumber	Cucumaria miniata
	Obelia sp.
	Sarsia sp.
	Melicertum sp.
	Allopora sp.
Frilled anemone	Metridium senile
Buried sea anemone	Anthopleura artemisia
Northern red anemone	Urticina crassicornis
Anemone	Harenactis sp.
Anemones	Clytia spp.
Jellyfishes	Aurelia spp.
Jellyfish	Cyanea capillata
Hydromedusa	Aequorea
Gurney's sea pen	Ptilosarcus gurneyi
Red tube worm	Serpula vermicularis
Banded feather duster	Sabella crassicornis
Phoronid worm	Phoronopsis harmeri
Giant feather duster	Eudistylia polymorpha
Comb jelly	Bolinopsis sp.
Barnacles	Balanus spp. & Semibalanus
Hair crab	Telmessus cheiragonus
Lyre crab	Hyas lyratus
King crab	Paralithodes camtschatica
Tanner crab	Chionoecetes bairdi

Dungeness crab	Cancer magister
Decorator crab	Oregonia gracilis
Crabs	Hapalogaster spp.
Anomuran crab	Rhinolithodes wosnessenskii
Coon-strip shrimp	Pandalus danae
Humpy shrimp	Pandalus goniurus
Bent-backed shrimp	Lebbeus grandimanus
Bent-backed shrimps	Lebbeus spp.
Bent-backed shrimps	Enalus spp.
Bent-backed shrimps	Heptacarpus
Bent-backed shrimps	Spirontocaris spp.
Sand shrimps	Crangon spp.
Sand shrimps	Argis spp.
Opossum shrimps	Neomysis spp.
Tunicate	Halocynthia sp.
Tunicate	Styela sp.
Squid	Rossia pacifica
Octopus	Octopus dofleini
Mollusca	Clione limacina
Nudibranch	Dendronotus rufus
Nudibranch	Dirona aurantia
Nudibranch	Cadlina sp.
Nudibranch	Coryphella sp.
Nudibranch	Crassicornis
Ringed doris	Diaulula sandiegensis
White king doris	Onchidoris odhneri
Monterey doris	Onchidoris montereyensis
Rough-mantled seaslug	Onchidoris bilamellata
Shag rug nudibranch	Aeolidia papillosa
Scallop	Chlamys hastata
Scallop	Chlamys rubida
Truncated mya	Mya truncata
Soft shell mya	Mya arenaria
Nuttall's cockle	Clinocardium nuttallii
Gaper clam	Tresus capax
Blue mussel	Mytilus edulis
Mussel	Modiolus sp.
Northwest neptune	Neptunea lyrata
Pribilof whelk	Neptunea pribilofiensis
Lyre whelk	Buccinum plectrum
Whelks	Nucella
Hairy triton	Fusitriton oregonensis
Amphissa	Amphissa sp.
Hairy shell	Trichotropis sp.
Limpets	Notoacmea, Collisella
Costate top	Calliostoma ligatum
Lined chiton	Tonicella lineata

Lined chiton	Tonicella insignis
Giant chiton	Cryptochiton stelleri
Chitons	Mopalia sp.
Veiled chiton	Placiphorella velata
Lampshell	Laqueus vancouverensis
Lampshell	Terebratulina sp.
Butter clam	Saxidomus giganteus
Crumb of bread sponge	Halichondria panicea
Clam worm	Nereis vexillosa
Cone worm	Pectinaria sp.
Sand worm	Nephtys sp.
Spoon worms	Echiurus alaskensis
Peanut worms	Siphuculus sp.
Mud worms	Polydora sp.
Fragile worm	Lumbrinerls sp.
File dogwinkle	Nucella lima
Frilled dogwinkle	Nucella lamellosa
Tube worm	Spirorbis sp.
Curly terebellid worm	Thelepus crispus
Baltic macoma	Macoma balthica
Bent-nosed macoma	Macoma nasuta
White macoma	Macoma inquinata
Little neck clam	Protothaca staminea
Jordan's colus	Colus jordani
Arctic moon snail	Natica clausa
Sitka periwinkle	Littorina sitkana
Euphausiids	Thysanoessa spp.
Euphausiid	Euphausia pacifica
Bryozoan	Membranipora serrilamella
Hermit crab	Elassochirus tenuimanus
Hermit crab	Pagurus hirsutiusculus

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5 AAC 95.520. Mendenhall Wetlands State Game Refuge Management Plan The goals and policies of the Mendenhall Wetlands State Game Refuge Management Plan dated March 1990 are adopted by reference. The plan presents management goals and policies for the refuge and its resources that the department will use in determining whether proposed activities in the refuge are compatible with the protection of fish and wildlife, their habitats, and public use of the refuge. Under 5 AAC 95.420, a special area permit is required for certain activities occurring in a designated state game refuge. The department will review each special area permit application for consistency with the goals and policies adopted by reference in this section. A special area permit issued for Mendenhall Wetlands State Game Refuge will be approved, conditioned, or denied based on the criteria set out in those goals and policies, and on the standards contained elsewhere in 5 AAC 95.

BIODIVERSITY LOSS

Decline of the North American avifauna

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Species extinctions have defined the global biodiversity crisis, but extinction begins with loss in abundance of individuals that can result in compositional and functional changes of ecosystems. Using multiple and independent monitoring networks, we report population losses across much of the North American avifauna over 48 years, including once-common species and from most biomes. Integration of range-wide population trajectories and size estimates indicates a net loss approaching 3 billion birds, or 29% of 1970 abundance. A continent-wide weather radar network also reveals a similarly steep decline in biomass passage of migrating birds over a recent 10-year period. This loss of bird abundance signals an urgent need to address threats to avert future avifaunal collapse and associated loss of ecosystem integrity, function, and services.

Slowing the loss of biodiversity is one of the defining environmental challenges of the 21st century (*1*–*5*). Habitat loss, climate change, unregulated harvest, and other forms of human-caused mortality (*6*, *7*) have contributed to a thousandfold increase in global extinctions in the Anthropocene compared to the presumed prehuman background rate, with profound effects on ecosystem functioning and services (*8*). The overwhelming focus on species extinctions, however, has underestimated the extent and consequences of biotic change, by ignoring the loss of abundance within still-common species and in aggregate across large species assemblages (*2*, *9*). Declines in abundance can degrade ecosystem integrity, reducing vital ecological, evolutionary, economic, and social services that organisms provide to their environment (*8*, *10*–*15*). Given the current pace of global environmental change, quantifying change in species abundances is essential to assess ecosystem impacts. Evaluating the magnitude of declines requires effective long-term monitoring of population sizes and trends, data that are rarely available for most taxa.

Birds are excellent indicators of environmental health and ecosystem integrity (*16*, *17*), and our ability to monitor many species over vast spatial scales far exceeds that of any other animal group. We evaluated population change for 529 species of birds in the continental United States and Canada (76% of breeding species), drawing from multiple standardized bird-monitoring datasets, some of which provide close to 50 years of population data. We integrated range-wide estimates of population size and 48-year population trajectories, along with their associated uncertainty, to quantify net change in numbers of birds across the avifauna over recent decades (*18*). We also used a network of 143 weather radars (NEXRAD) across the contiguous United States to estimate long-term changes in nocturnal migratory passage of avian biomass through the airspace in spring from 2007 to 2017. The continuous operation and broad coverage of NEXRAD provide an automated and standardized monitoring tool with unrivaled temporal and spatial extent (*19*). Radar measures cumulative passage across all nocturnally migrating species, many of which breed in areas north of the contiguous United States that are poorly monitored by avian surveys. Radar thus expands the area and the proportion of the migratory avifauna that is sampled relative to ground surveys.

Results from long-term surveys, accounting for both increasing and declining species, reveal a net loss in total abundance of 2.9 billion [95% credible interval (CI) = 2.7–3.1 billion] birds across almost all biomes, a reduction of 29% (95% CIs = 27–30%) since 1970 (Fig. 1 and Table 1). Analysis of NEXRAD data indicates a similarly steep decline in nocturnal passage of migratory biomass, a reduction of 13.6 ± 9.1% since 2007 (Fig. 2A). Reduction in biomass passage occurred across the eastern United States (Fig. 2, C and D), where migration is dominated by large numbers of temperate- and boreal-breeding songbirds; we observed no consistent trend in the Central or Pacific flyway regions (Fig. 2, B to D, and table S5). Two completely different and independent monitoring techniques thus signal major population loss across the continental avifauna.

Species exhibiting declines (57%, 303 out of 529 species) on the basis of long-term survey data span diverse ecological and taxonomic groups. Across breeding biomes, grassland birds showed the largest magnitude of total population loss since 1970—more than 700 million breeding individuals across 37 species—and the largest proportional loss (53%); 74% of grassland species are declining. (Fig. 1 and Table 1). All forest biomes experienced large avian loss, with a cumulative reduction of more than 1 billion birds. Wetland birds represent the only biome to show an overall net gain in numbers (13%), led by a 56% increase in waterfowl populations (Fig. 3 and Table 1). Unexpectedly, we also found a large net loss (63%) across 10 introduced species (Fig. 3, D and E, and Table 1).

A total of 419 native migratory species experienced a net loss of 2.5 billion individuals, whereas 100 native resident species showed a small net increase (26 million). Species overwintering in temperate regions experienced the largest net reduction in abundance (1.4 billion), but proportional loss was greatest among species overwintering in coastal regions (42%), southwestern aridlands (42%), and South America (40%) (Table 1 and fig. S1). Shorebirds, most of which migrate long distances to winter along coasts throughout the hemisphere, are experiencing consistent, steep population loss (37%).

More than 90% of the total cumulative loss can be attributed to 12 bird families (Fig. 3A), including sparrows, warblers, blackbirds, and finches. Of 67 bird families surveyed, 38 showed a net loss in total abundance, whereas 29 showed gains (Fig. 3B), indicating recent changes in avifaunal composition (table S2). Although not optimized for species-level analysis, our model indicates that 19 widespread and abundant landbirds (including two introduced species) each experienced population reductions of >50 million birds (data S1). Abundant species also contribute strongly to the migratory passage detected by radar (*19*), and radar-derived trends provide a fully independent estimate of widespread declines of migratory birds.

Our study documents a long-developing but overlooked biodiversity crisis in North America—the cumulative loss of nearly 3 billion birds across the avifauna. Population loss is not restricted to rare and threatened species, but includes many widespread and common species that may be disproportionately influential components of food webs and ecosystem function. Furthermore, losses among habitat generalists and even introduced species indicate that declining species are not replaced by species that fare well in human-altered landscapes. Increases among waterfowl and a few other groups (e.g., raptors recovering after the banning of DDT) are insufficient to offset large losses among abundant species (Fig. 3). Notably, our population loss estimates are conservative because we estimated loss only in breeding populations. The total loss and

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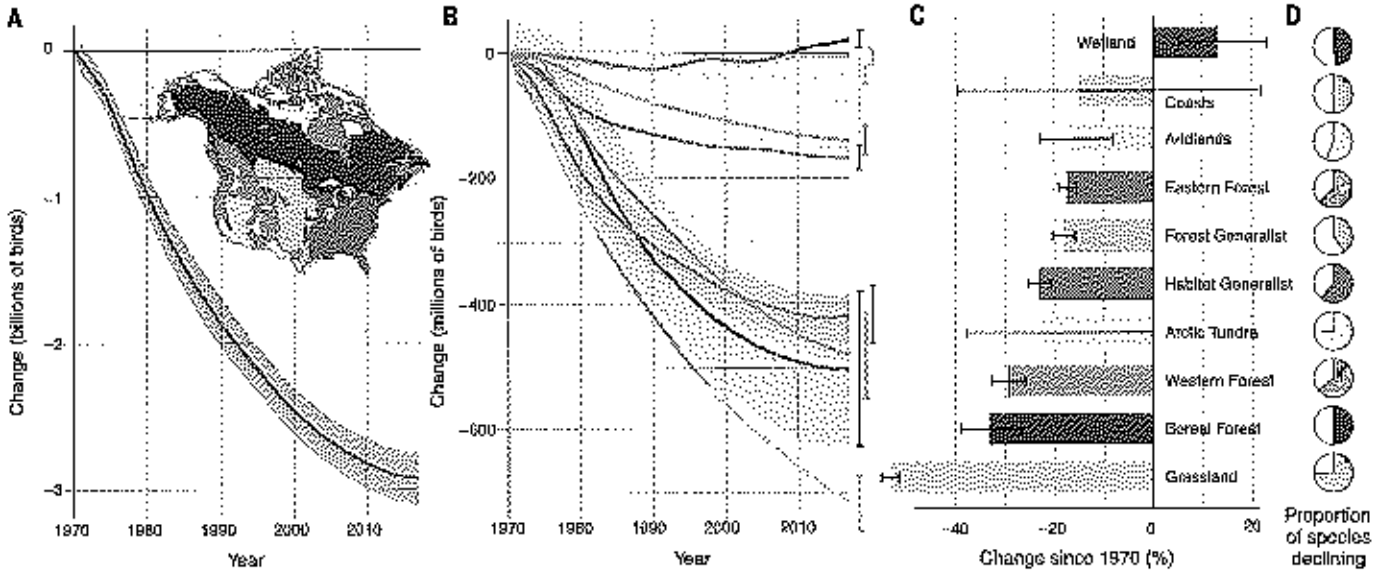


Fig. 1. Net population change in North American birds. (**A**) By integrating population size estimates and trajectories for 529 species (*18*), we show a net loss of 2.9 billion breeding birds across the continental avifauna since 1970. Gray shading represents the 95% credible interval (CI) around total estimated loss. Map shows color-coded breeding biomes based on Bird Conservation Regions and land cover classification (*18*). (**B**) Net loss of abundance occurred across all major breeding biomes except wetlands (see Table 1). (**C**) Proportional net population change relative to 1970, ±95% CI. (**D**) Proportion of species declining in each biome.

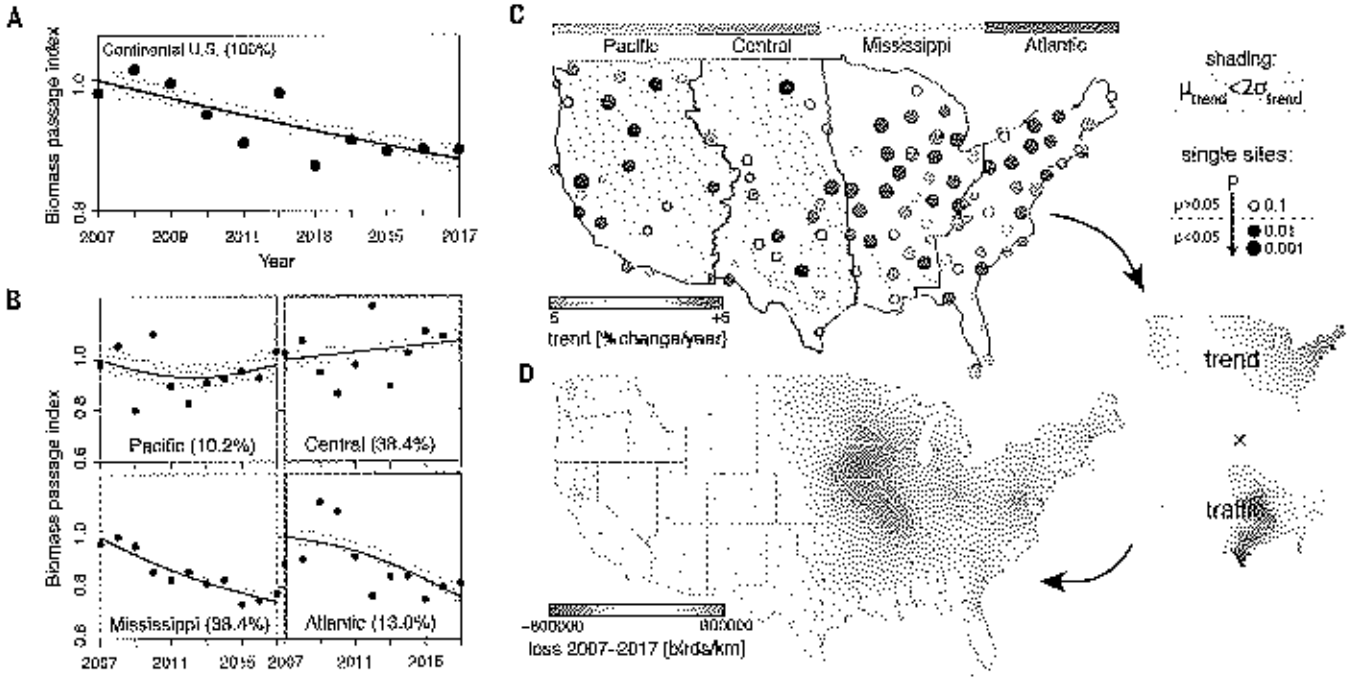


Fig. 2. NEXRAD radar monitoring of nocturnal bird migration across the contiguous United States. (**A**) Annual change in biomass passage for the full continental United States (black) and (**B**) the Pacific (green), Central (brown), Mississippi (yellow), and Atlantic (blue) flyways (borders indicated in (C)), with percentage of total biomass passage (migration traffic) for each flyway indicated; declines are significant only for the full United States and the Mississippi and Atlantic flyways (tables S3 to S5). (**C**) Single-site trends in seasonal biomass passage at 143 NEXRAD stations in spring (1 March to 1 July), estimated for the period 2007–2017. Darker red colors indicate higher declines and loss of biomass passage, whereas blue colors indicate biomass increase. Circle size indicates trend significance, with closed circles being significant at a 95% confidence level. Only areas outside gray shading have a spatially consistent trend signal separated from background variability. (**D**) Ten-year cumulative loss in biomass passage, estimated as the product of a spatially explicit (generalized additive model) trend, times the surface of average cumulative spring biomass passage.

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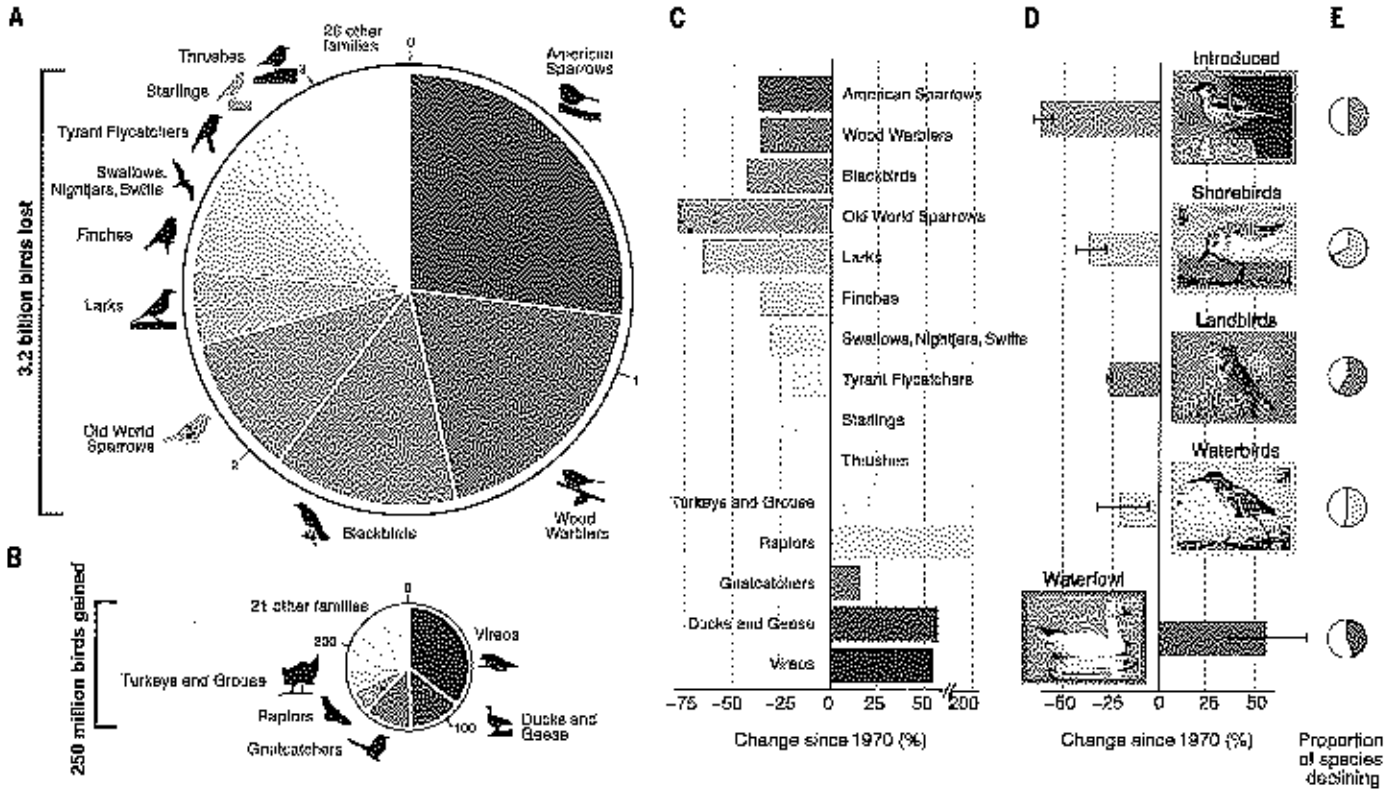


Fig. 3. Gains and losses across the North American avifauna over the past half-century. (**A**) Bird families were categorized as having a net loss (red) or gain (blue). Total loss of 3.2 billion birds occurred across 38 families; each family with losses greater than 50 million individuals is shown as a proportion of total loss, including two introduced families (gray). Swallows, nightjars, and swifts together show loss within the aerial insectivore guild. (**B**) Twenty-nine families show a total gain of 250 million individual birds; the five families with gains greater than 15 million individuals are shown as a proportion of total gain. Four families of raptors are shown as a single group. Note that combining total gain and total loss yields a net loss of 2.9 billion birds across the entire avifauna. (**C**) For each individually represented family in (B) and (C), proportional population change within that family is shown. See table S2 for statistics on each individual family. (**D**) Percentage population change among introduced and each of four management groups (*18*). A representative species from each group is shown (top to bottom, house sparrow, *Passer domesticus*; sanderling, *Calidris alba*; western meadowlark, *Sturnella neglecta*; green heron, *Butorides virescens*; and snow goose, *Anser caerulescens*). (**E**) Proportion of species with declining trends.

impact on communities and ecosystems could be even higher outside the breeding season if we consider the amplifying effect of "missing" reproductive output from these lost breeders.

Extinction of the passenger pigeon (*Ectopistes migratorius*), once likely the most numerous bird on the planet, provides a poignant reminder that even abundant species can go extinct rapidly. Systematic monitoring and attention paid to population declines could have alerted society to its pending extinction (*30*). Today, monitoring data suggest that avian declines will likely continue without targeted conservation action, triggering additional endangered species listings at tremendous financial and social cost. Moreover, because birds provide numerous benefits to ecosystems (e.g., seed dispersal, pollination, pest control) and economies [47 million people spend U.S.$9.3 billion per year through bird-related activities in the United States (*21*)], their population reductions and possible extinctions will have severe direct and indirect consequences (*70*, *22*). Population declines can be reversed, as evidenced by the exceptional recovery of waterfowl populations under adaptive harvest management (*23*) and the associated allocation of billions of dollars devoted to wetland protection and restoration, providing a model for proactive conservation in other widespread native habitats such as grasslands.

Steep declines in North American bird populations parallel patterns of avian declines emerging globally (*14*, *15*, *22*, *24*). In particular, depletion of native grassland bird populations in North America, driven by habitat loss and more toxic pesticide use in both breeding and wintering areas (*25*), mirrors loss of farmland birds throughout Europe and elsewhere (*15*). Even declines among introduced species match similar declines within these same species' native ranges (*26*). Agricultural intensification and urbanization have been similarly linked to declines in insect diversity and biomass (*27*), with cascading impacts on birds and other consumers (*24*, *28*, *29*). Given that birds are one of the best monitored animal groups, birds may also foreshadow a much larger problem, indicating similar or greater losses in other taxonomic groups (*28*, *30*).

Pervasiveness of avian loss across biomes and bird families suggests multiple and interacting threats. Isolating spatiotemporal limiting factors for individual species and populations will require additional study, however, because migratory species with complex life histories are in contact with many threats throughout their annual cycles. A focus on breeding season biology hampers our ability to understand how seasonal interactions drive population change (*31*), although recent continent-wide analyses affirm the importance of events during the nonbreeding season (*19*, *32*). Targeted research to identify limiting factors must be coupled with effective policies and societal change that emphasize reducing threats to breeding and nonbreeding habitats and minimizing avoidable anthropogenic mortality year-round. Endangered species legislation and international treaties, such as the 1916 Migratory Bird Treaty between Canada and the United States, have prevented extinctions

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Table 1. Net change in abundance across the North American avifauna, 1970–2017. Species are grouped into native and introduced species, management groups (landbirds, shorebirds, waterbirds, waterfowl), major breeding biomes, and nonbreeding biomes (see data S1 in (*18*) for assignments and definitions of groups and biomes). Net change in abundance is expressed in millions of breeding individuals, with upper and lower bounds of each 95% credible interval (CI) shown. Percentages of species in each group with negative trend trajectories is also noted. Values in bold indicate declines and loss; those in italics indicate gains.

Species group	No. of species	Net abundance change (millions) and 95% CIs			Percent change and 95% CIs			Proportion species in decline
		Change	LC95	UC95	Change	LC95	UC95	
Species summary								
All N. Am. species	529	**−2,911.9**	−3,097.5	−2,732.9	**−28.8%**	−30.2%	−27.3%	57.3%
All native species	519	**−2,521.0**	−2,698.5	−2,347.6	**−26.5%**	−28.0%	−24.9%	57.4%
Introduced species	10	**−391.6**	−442.3	−336.6	**−62.9%**	−66.5%	−56.4%	50.0%
Native migratory species	419	**−2,547.7**	−2,723.7	−2,374.5	**−28.3%**	−29.8%	−26.7%	58.2%
Native resident species	100	*26.3*	7.3	46.9	*5.3%*	1.4%	9.6%	54.0%
Landbirds	357	**−2,516.5**	−2,692.2	−2,346.0	**−27.1%**	−28.6%	−25.5%	58.8%
Shorebirds	44	**−17.1**	−21.8	−12.6	**−37.4%**	−45.0%	−28.8%	68.2%
Waterbirds	77	**−22.5**	−37.8	−6.3	**−21.5%**	−33.1%	−6.2%	51.9%
Waterfowl	41	*34.8*	24.5	48.3	*56.0%*	37.9%	79.4%	43.9%
Aerial insectivores	26	**−156.8**	−183.8	−127.0	**−31.8%**	−36.4%	−26.1%	73.1%
Breeding biome								
Grassland	31	**−717.5**	−763.9	−673.3	**−53.3%**	−55.1%	−51.5%	74.2%
Boreal forest	34	**−500.7**	−627.1	−381.0	**−33.1%**	−38.9%	−26.9%	50.0%
Forest generalist	40	**−482.2**	−552.5	−413.4	**−18.1%**	−20.4%	−15.8%	40.0%
Habitat generalist	38	**−417.3**	−462.1	−371.3	**−23.1%**	−25.4%	−20.7%	60.5%
Eastern forest	63	**−166.7**	−185.8	−147.7	**−17.4%**	−19.2%	−15.6%	63.5%
Western forest	67	**−139.7**	−163.8	−116.1	**−29.5%**	−32.8%	−26.0%	64.2%
Arctic tundra	51	**−79.9**	−131.2	−0.7	**−23.4%**	−37.5%	−0.2%	56.5%
Aridlands	62	**−35.6**	−49.7	−27.0	**−17.0%**	−23.0%	−8.1%	56.5%
Coasts	38	−6.1	−18.9	8.5	−15.0%	39.4%	21.9%	50.0%
Wetlands	95	20.6	8.3	35.3	*13.0%*	5.1%	23.0%	47.4%
Nonbreeding biome								
Temperate N. America	192	**−1,413.0**	−1,521.5	−1,292.3	**−27.4%**	−29.3%	−25.3%	55.2%
South America	41	**−537.4**	−651.1	−432.6	**−40.1%**	−45.2%	−34.6%	75.6%
Southwestern aridlands	50	**−238.1**	−261.2	−215.6	**−41.9%**	−44.5%	−39.2%	74.0%
Mexico–Central America	76	**−155.3**	−187.8	−122.0	**−15.5%**	−18.3%	−12.6%	52.6%
Widespread neotropical	22	**−126.0**	−171.2	−86.3	**−26.8%**	−33.4%	−19.3%	45.5%
Widespread	60	−31.6	−63.1	1.6	−3.7%	−7.4%	0.2%	43.3%
Marine	26	**−16.3**	−29.7	−1.2	**−30.8%**	−49.1%	−2.5%	61.5%
Coastal	44	**−11.0**	−14.9	−6.7	**−42.0%**	−51.8%	−26.7%	68.2%
Caribbean	8	−6.0	1.4	−15.7	12.1%	−2.8%	31.7%	25.0%

and promoted recovery of once-depleted bird species. History shows that conservation action and legislation work. Our results signal an urgent need to address the ongoing threats of habitat loss, agricultural intensification, coastal disturbance, and direct anthropogenic mortality, all exacerbated by climate change, to avert continued biodiversity loss and potential collapse of the continental avifauna.

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SUPPLEMENTARY MATERIALS

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Science

Decline of the North American avifauna

Kenneth V. Rosenberg, Adriaan M. Dokter, Peter J. Blancher, John R. Sauer, Adam C. Smith, Paul A. Smith, Jessica C. Stanton, Arvind Panjabi, Laura Helft, Michael Parr and Peter P. Marra

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Staggering decline of bird populations

Because birds are conspicuous and easy to identify and count, reliable records of their occurrence have been gathered over many decades in many parts of the world. Drawing on such data for North America, Rosenberg *et al.* report wide-spread population declines of birds over the past half-century, resulting in the cumulative loss of billions of breeding individuals across a wide range of species and habitats. They show that declines are not restricted to rare and threatened species---those once considered common and wide-spread are also diminished. These results have major implications for ecosystem integrity, the conservation of wildlife more broadly, and policies associated with the protection of birds and native ecosystems on which they depend.

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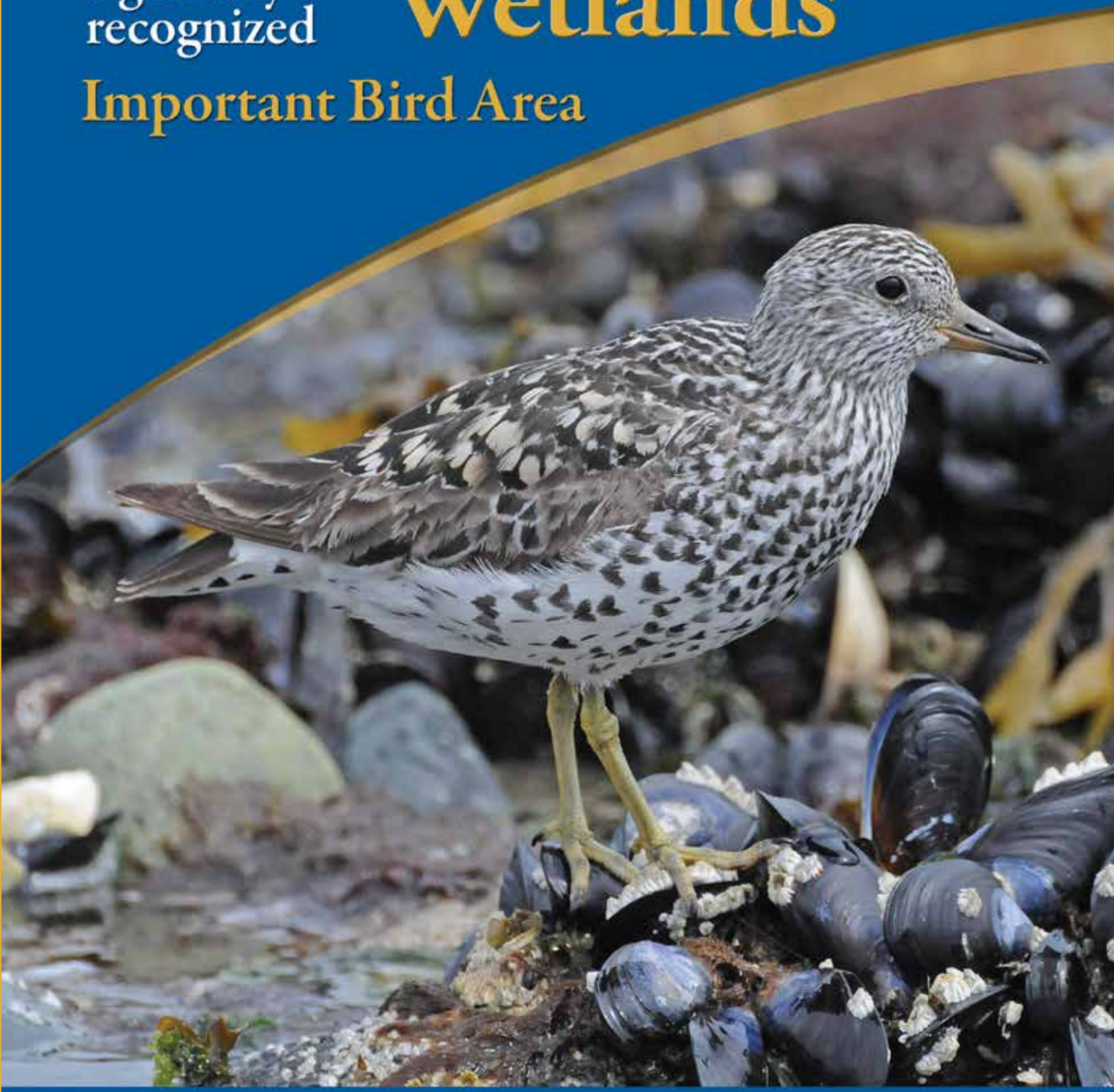
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The Mendenhall Wetlands

a globally recognized Important Bird Area



Robert H. Armstrong • Richard L. Carstensen • Mary F. Willson • Marge Hermans Osborn

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Robert H. Armstrong

Richard L. Carstensen

Mary F. Willson

Marge Hermans Osborn

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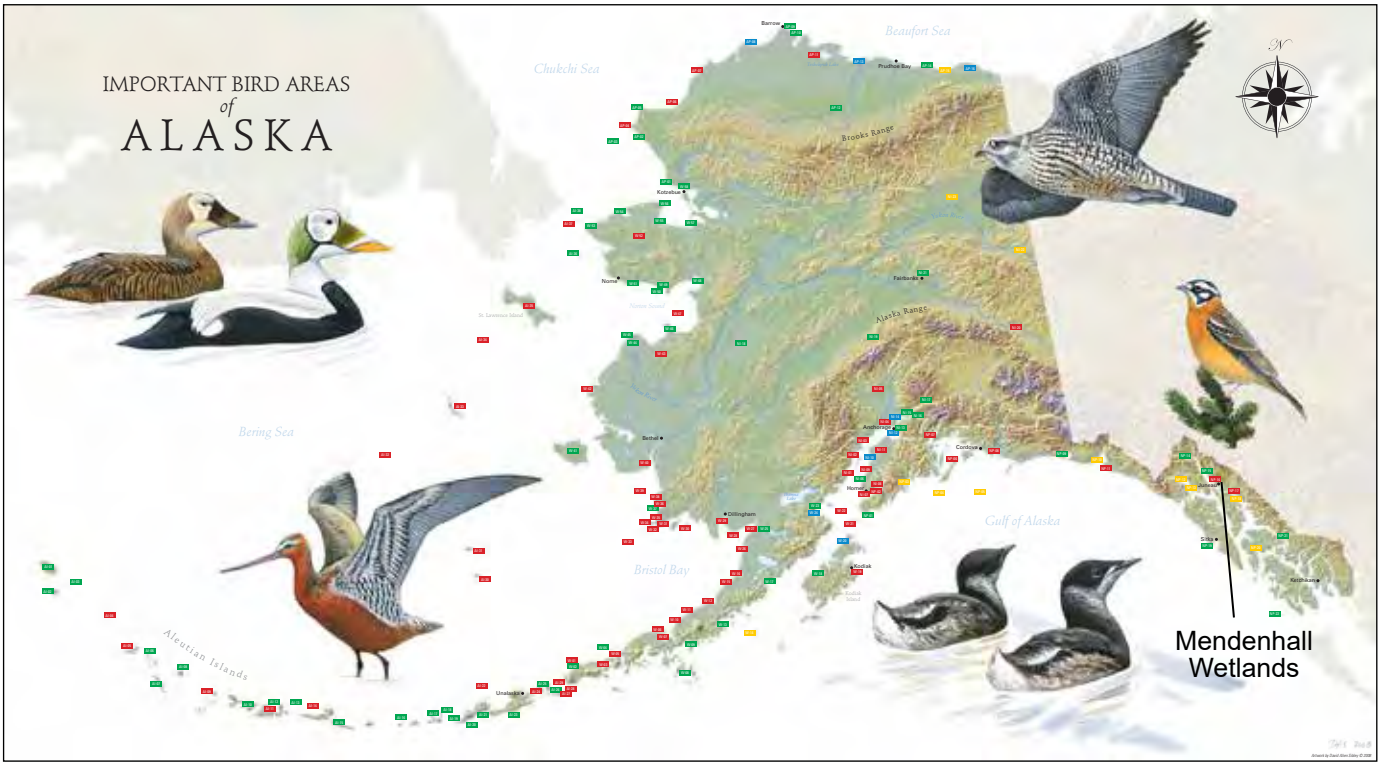
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Cover: Surfbird feeding amongst the mussel beds.



As of 2009, Alaska has 145 Important Bird Areas. The majority of these, including the Mendenhall Wetlands, are also recognized as globally or continentally significant. In fact, Alaska has almost half of all globally significant Important Bird Areas identified in the United States.

To showcase these habitats, Audubon Alaska is offering beautiful, poster-sized maps suitable for hanging on the wall or in a classroom. To order a free copy of one of these maps visit the Audubon Alaska website at http://www.audubonalaska.org/



The Southeast Alaska Land Trust is a private, non-profit organization supported by local memberships, private foundations and public grants. *Our mission is to work with communities and private land owners to ensure that vital natural areas remain in place for the benefit of each generation.*

The Mendenhall Wetlands are vital to a significant and diverse population of birds. This salt water, tidal marsh area is the third largest in Southeast Alaska and provides critical rest and replenishment for both migrating and resident birds.

Although the Mendenhall Wetlands fall largely within the defined boundary of the State's Game Refuge, the protections of that designation are vulnerable—not only to the effects of surrounding land uses, but, surprisingly, to the land's natural uplift caused by glacial retreat. Much of the property surrounding the Refuge is legally defined in a way that allows the upland owners to progressively make claim to lands extending out to the retreating mean-high tide line—to lands within the original Refuge boundary. For each upland owner, these "accreted lands" are measured in acres. Claims of one or two acres are typical and up to 15 acres have been claimed in a single case. As the rebound continues, additional claims may be made.

The Southeast Alaska Land Trust is working to convert this moving Refuge boundary into a fixed, stable boundary, or to provide conservation protections on the private, "accreted lands." Using mitigation fees paid to compensate for unavoidable wetland impacts from Juneau airport projects, we will offer to purchase these "accreted lands" outright or, alternately, conservation easements from willing upland owners. Accretion claims will, otherwise, slowly privatize lands around a shrinking Refuge perimeter, and over time give way to urbanization.

The Mendenhall Wetlands provide a glimpse into the timeless cycle of life on the planet. We congratulate the authors on their work. Each of us is grateful to you for making your observations of this place so brilliantly accessible to inform our experience. Thank you.

We are grateful for the generosity of an anonymous SEALTrust donor who has funded printing of this book, and we are committed to assist in the long-term protection of this vital, natural area. May each generation share our experience of this wondrous place!

Diane Mayer
Executive Director
Southeast Alaska Land Trust
www.southeastalaskalandtrust.org

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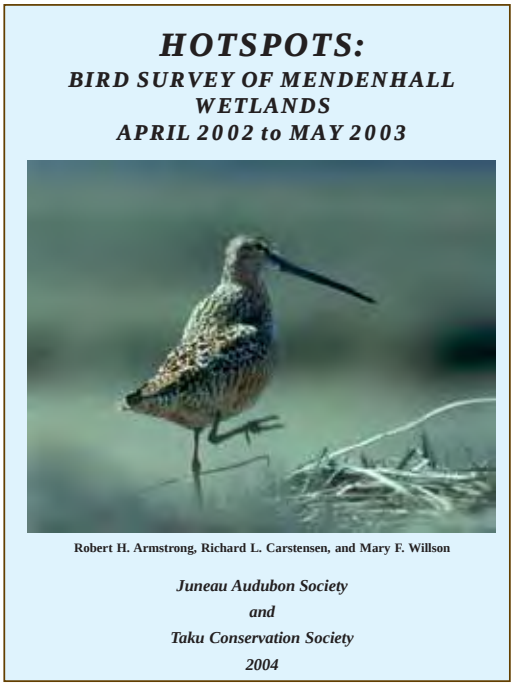
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Background

Our interest in the Mendenhall Wetlands began in 1960, long before much of it became established as a refuge. Bob especially liked to go birding in the area that is now the floatplane basin. The area had a wonderful mosaic of habitats that attracted birds. Waterfowl nested there, Arctic Terns had a colony and even nested along the airport runway, Least and Spotted Sandpipers were also common nesters.



Later he met Frank Glass and they often spent time together on the Wetlands looking at birds. Frank especially liked to census the songbirds during breeding season. Bob liked to photograph birds and sat in blinds or wandered about the area with his huge Leicaflex telephoto lens complete with shoulder stock that resembled a military weapon. Once a security officer, with lights flashing, came across the runway and made him return to the terminal for interrogation. It took a while to convince the officer that his "weapon" was really a camera. Frank and Bob eventually produced the first checklist of birds for the Mendenhall Wetlands.

It was a sad day for birds and birders when they dredged the float plane basin. During dredging they were about to plow under the Arctic Tern nests complete with eggs and chicks. Bob contacted Rick Reed, the habitat coordinator for Fish and Game, and the Department stopped any further construction of the basin until the terns finished nesting.

In 1987 Bob and Richard teamed up with Dan Bishop and conducted an environmental analysis of lower Jordan Creek and the nearby wetlands. Dan was a hydrologist, Richard specialized in vegetation, and Bob was a fishery biologist. Bob remembers walking the tidal sloughs at night with Coleman lanterns and seeing abundant salmon young, which were not visible during daylight.

Bob, Richard, and Mary did bird surveys of the entire Wetlands in 2002 and 2003. This study was funded by the U.S. Fish and Wildlife Service to compare the results to an earlier similar study conducted by the service in 1986. The entire report, known as the "Hotspot Report," was later published by the Juneau Audubon Society and Taku Conservation Society.

Mary also teamed up with Aaron Baldwin and conducted invertebrate surveys at several places on the Wetlands. Their report was added to the hotspot report.

Earlier observations got Mary, an ecologist, interested in the birds feeding on sand lance and the gulls feeding on salmon eggs and carcasses. These studies were later published.

Richard and Bob later teamed up and did breeding bird surveys on airport property for the consultants working on the Environmental Impact Statement for the recent planned expansion of the airport.

In 2004, Richard produced a detailed vegetation map and assessed implications of glacial rebound and development for SEALTrust.

Bob and his friend Rich Gordon have spent a considerable amount of time birding together on the Wetlands. Rich always kept detailed notes of what he saw. They eventually put together the second checklist of birds for the Mendenhall Wetlands. In 2005 they filed the application, with support from Juneau Audubon, to establish the Wetlands as an Important Bird Area. When the Mendenhall Wetlands was officially established as an Important Bird Area of global significance, we all knew we had to write a book about the area.

Bob and Marge have a long history of collaborating on articles and books dealing with Southeast Alaska's natural world. Marge's skill at making things look good in both layout and words was an important addition to this book.

We are so fortunate to have such a wonderful place in our backyard. We hope this book contributes to the protection of the Mendenhall Wetlands.

Establishing an Important Bird Area

In 2005, Juneau Audubon Society applied to Audubon Alaska to have the Mendenhall Wetlands classified as an Important Bird Area (IBA). The application was reviewed by the Alaska Technical Committee and in 2006 the Wetlands were recognized as an IBA at the state level. The nomination was then sent to the National Technical Committee for their assessment of the site's continental and global significance. In 2007 the Mendenhall Wetlands was officially recognized as globally significant by the U.S. IBA Committee.

The Important Bird Area program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S., has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season.

At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Short-billed Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.



The Surfbird is an Audubon WatchList "Species of High Conservation Concern" because its worldwide population is estimated at only 70,000, and that is suspected to be declining. More than a thousand Surfbirds at a time have been seen on Mendenhall Wetlands in April, May, and July.

Mendenhall Wetlands does indeed provide food and/or resting space to a remarkable variety and abundance of birds. We know this because of more than 40 years of records by birding enthusiasts, and two major studies that have documented the variety and abundance of birds in the area.

As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat).

Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

Mendenhall Wetlands State Game Refuge

Most of Mendenhall Wetlands is owned by the State of Alaska and is included in the 3,764-acre Mendenhall State Game Refuge, managed by the Alaska Department of Fish and Game. A much smaller portion falls under the jurisdiction of the Juneau City and Borough, and is managed by the Juneau Airport. About seven percent of the Wetlands (350 acres) is privately owned. That portion includes Miller-Honsinger Pond, an important area for waterfowl and other birds, and the Juneau golf course.
The following description and history is adapted from the State of Alaska's Mendenhall Wetlands State Game Refuge Management Plan.

Located between Douglas Island and the mainland at Juneau in northern Southeast Alaska, the 3,764-acre refuge stretches along nine miles of Gastineau Channel and is accessed via the Egan Expressway, Sunny Drive, North Douglas Highway, Fritz Cove Road, Mendenhall Peninsula Road, and the Airport Dike Trail. Gastineau Channel was originally formed by glacial scouring and later filled by marine and river sediments. Today it is fed by silt-laden water from Mendenhall and Lemon Glaciers, as well as numerous smaller clear-water systems, notably Fish, Jordan, Switzer, and Salmon Creeks.

History

Prior to the creation of the State Game Refuge on the Mendenhall Wetlands by the 1976 Alaska State Legislature, the general area played a part in the development of the Juneau area. Captain George Vancouver's party charted Douglas Island and Gastineau Channel in 1794, but other white men had evidently been in the area, as local natives had blunderbusses and muskets. Vancouver's journals mention ice blocking the passage through Gastineau Channel.

European fur traders visited the area from at least 1799 through the 1860s; trading was apparently carried on with the Auk tribe who lived along and gathered natural resources from the wetlands.

In 1879 naturalist John Muir and Presbyterian minister S. Hall Young traveled through "the flats," as the area has often been called throughout its history. Muir noted the Mendenhall Glacier was in the "first stages of decadence" and observed the mineralization of the mainland shore. This latter fact was borne out in the following year when Juneau's "founding fathers," Richard Harris and Joe Juneau, discovered gold in the Silverbow Basin. The city of Juneau was founded in 1900, and mining was active in the area through 1944. While mining may not have had much of a direct impact on what today are refuge lands, in the early teens one miner reported finding gold in the "Mendenhall Mud Flats." This turned out to be a practical joke but resulted in a stampede to the intertidal area by miners looking for the salted lode.

Impacts on the intertidal areas followed the growing population associated with development of the area. The Northwest Trading Company steamer *Favorite* carried passengers from Sitka to Fritz Cove, then passengers crossed the Mendenhall River Bar via "big dugout canoes." In 1911 the Salmon Creek dam and two powerhouses were built by the Alaska Gastineau Channel Mining Company.

In 1924 and 1925, marten, mink, and fox farming was conducted on what is today refuge property. And in 1926 the Mendenhall River was bridged. In the late teens and early 1920s, Thomas Knudsen had a dairy at the present site of the Juneau Municipal Airport. This operation was taken over by the Kendlers in 1922 (the same year that four navigation lights were installed to mark the Mendenhall Bar) and operated until 1965. The year 1934 marked the first use of Joe Kendler's fields as a runway, and around 1936 the United States Army used the fields for this purpose.

In 1938/39 part of this farm was sold to Pan American Airways for use as an airfield, which was in turn enlarged by the Army in 1940/41. After the city of Juneau obtained the airport property, the runway was eventually extended to 8,468 feet in length. Airport construction destroyed salt marsh habitat, but ponds dredged during the project created loafing habitat for waterfowl.

The Golden North Salmon Derby, which began in 1938, has relied in part on fish originating from streams that drain into the wetlands.

Some people saw great potential for agriculture in the Wetlands' well-drained meadows fringed with big trees. As Joe Kendler stated, "Only land that produces giant timber . . . will make good farm land." Other changes followed awarding the bid for airport construction in 1941; two million cubic yards of material were moved during this project. More people settled in the area. One attitude expressed at that time was, "Another happy consequence . . . was that the wildlife moved deeper into the woods, and no longer bothered us or endangered our cattle."

In the early 1940s the Juneau Gun Club was first located at Salmon Creek and then moved to Mendenhall River at the present-day site of the float plane pond. In the fall of 1944, federal game wardens found many waterfowl dead at this site from lead poisoning. This area, located at the floatplane pond, was closed and $70,000 in public funds were spent in rehabilitation.

In 1959/60, $750,000 was spent by the Army Corps of Engineers dredging a navigational channel between Gastineau Channel and Fritz Cove/ Stephens Passage. By 1971, the channel had silted in and a "natural equilibrium between deposition and erosion" had been re-established, and the wetlands were again navigable only at high tide by small craft, similar to 90 years earlier. The sand islands created by the dredging are now sparsely vegetated with alder, cottonwood, willow, and young spruce bordered by thick mats of beach rye.

Dredging associated with the construction of the Egan Expressway was also conducted in the 1970s. General recognition of the importance of the Mendenhall Wetlands began in 1965 (It is interesting to note that in 1913 the Juneau Commercial Club, forerunner of the Chamber of Commerce, had as its keynote address a speech entitled "Redemption of the Tide Flats"). Public concern fully matured in the mid- to late 1960s in relation to two subjects; 1) the first consideration of a land-management plan for the area, and 2) the routing of the Egan Expressway across the flats. In addition to the above-mentioned habitat loss, acreage has also been lost due to gravel extraction.



P44-11-042, Alaska State Library, Skinner Foundation Photograph

This early view upriver shows the Mendenhall River flood plain before substantial river downcutting began with the continuing retreat of Mendenhall Glacier and formation of Mendenhall Lake.

Garbage and sewage disposal have also impacted the wetlands.

In 1976 the refuge was established. The primary values of the refuge were recognized as fish and wildlife habitat and the associated human uses of these resources. Alaska Statutes, Title 16 (Sec. 16.20.020) states, "The purpose . . . is to protect and preserve the natural habitat and game populations in certain designated areas of the state." Section 16.20.034(e and f), which addresses the Mendenhall Refuge, states that within most of the refuge "the taking of game is expressly permitted" and "Recreational activity is expressly permitted."

Establishing a Refuge

James G. King of Juneau was a survey pilot in Alaska for the U.S. Fish and Wildlife Service for 30 years. He was instrumental in the establishment of a number of U.S. wildlife refuges and state parks, including Pt. Bridget State Park and Ernest Gruening State Historic Site.

*In his memoir **Attending Alaska's Birds**, published in 2008, King describes his role in promoting the establishment of Mendenhall Wetlands State Game Refuge. Here is an excerpt from his book:*



Photo by Mary Lou King

I became involved in promoting the Mendenhall Wetlands State Game Refuge for personal as well as professional reasons. When Mary Lou and I moved to Juneau in 1964 we were able to buy the old Hendrickson home on the edge of the Mendenhall tide flats. We have enjoyed living close to the wetlands ever since.

In 1965 I talked with old friend Bob Weeden of the Alaska Department of Fish & Game (ADF&G) about the possibility of getting Mendenhall flats for a state refuge. This led to a 1966 report by ADF&G biologists Pete Shepherd and Ron Somerville proposing such a refuge. There was substantial support at several city assembly hearings, but this idea was rejected at that time.

Next a controversy developed over locating the new four-lane highway to the airport. The engineers and city fathers preferred a direct route bisecting the tide flats. Conservationists, duck hunters, and the resource agencies wanted to keep the road as close to the upland as possible. I wrote a detailed letter stressing four responsibilities of the USFWS: 1) airport safety, 2) recreation provided by birds, 3) responsibilities under international treaties, and 4) environmental protection. In each case I showed an inner or upland route would be more favorable. My regional director in Portland, Oregon, signed the letter, and I read it at the hearing in March 1969. Joe Greenough of the Steller Society effectively challenged the highway engineer's cost-benefit figures. The middle route was selected, though it did get pushed out on the wetlands a bit.

Since the Mendenhall wetlands had attracted so much attention it seemed like a good time to bring up the refuge proposal again. Mike Miller, who had been on the Juneau assembly during the earlier hearings regarding the refuge, was now in the state legislature. Mike eventually introduced and strongly advocated a bill to create the refuge. The Juneau Chamber of Commerce loudly opposed it, but the public that had favored the more upland highway route continued strong support. I testified at several legislative hearings. John Hope, Juneau's most eloquent Tlingit elder of the time, provided his support. The FAA was quite pointed in their preference for a wildlife refuge rather than any community development in the airport area. The resource agencies were all favorable.

The 3,764-acre Mendenhall Wetlands State Game Refuge, in the middle of the city of Juneau, became a reality on May 1, 1976. This refuge, less than half the original 8,000 acres of earlier tidelands, is greatly appreciated. Commuters on their way to and from work see flocks of ducks and geese and cruising eagles. Urban residents can hunt ducks in season without the sort of commute required in most places. Bird-watchers enjoy the scene from the airport dike trail year round. Visitors from Alaska's more northerly population centers, locked in frozen whiteness all winter, enjoy the scene of some birds on the water just as I did on my first visits before moving here. The airport people still worry about the birds, but they do their best to accommodate to community values without compromising safety. The future of this refuge is not secure, as there is continuing talk of airport expansion and the need for highway crossings.

Birds



Among the birds seen on the Wetlands, waterfowl and shorebirds are of special importance. Nearly every species of waterfowl and shorebird that occurs in Southeast Alaska has been seen on the Wetlands at one time or another. To date that includes 38 of the 42 species of waterfowl found in Southeast Alaska, and 41 of the 45 shorebird species found in the region. The Wetlands also host a number of grassland and wet-meadow songbird species, as well as a variety of migrating raptors, including Short-eared Owls and Northern Harriers.

Even more impressive than this variety, however, is the sheer abundance of birds at various times. Numbers of birds on the Wetlands reach their peak during spring migration, especially the five weeks between mid-April and late May. At that time the numbers of birds can reach a daily high of more than 16,000 individuals.

Bird numbers are also substantial during fall migration, which is spread over a longer period than spring. During the nine weeks of July and August, up to 4,000 individual birds might be seen per day. Even in winter, from 2,000 to 5,000 individual birds have been counted on the Wetlands in a single day.

Shorebirds

What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of *Living on the Wind*, a book about bird migration:

> *Most of the world's surface is useless to a shorebird—too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure.*

The Mendenhall Wetlands are indeed important beyond measure because they

Long-billed Dowitchers sometimes occur in flocks of a couple hundred individuals on the Wetlands, especially during spring migration.



Surbirds have been seen on the Wetlands numbering up to 2,500 individuals at one time.

are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

Migratory shorebirds on their way north typically reach the Wetlands in peak numbers from mid-April through the third week in May. The fall migration south takes place over a greater number of weeks, with substantial numbers of birds moving through in July and August. The fall migration of most shorebird species is over by early October.

Western Sandpipers are the most numerous shorebirds. Up to 5,000 individuals have been counted in a single day. More than 1,000 Ruddy Turnstones and 2,000 Surfbirds have also been counted during one day.

The Wetlands are also important for Black-bellied Plovers, Greater Yellowlegs, Lesser Yellowlegs, Black Turnstones, Semipalmated Sandpipers, Least Sandpipers, Pectoral Sandpipers, Rock Sandpipers, Dunlins, Short-billed Dowitchers, and



Western Sandpipers are the most abundant shorebird on the Mendenhall Wetlands during spring migration. Observers have counted up to 5,000 individuals at one time.

Long-billed Dowitchers. Counts for these species have typically been in the hundreds per day.

Among migrant shorebirds, Greater Yellowlegs are often the earliest to arrive in spring, beginning around the first of April. The latest of the fall-migrant shorebirds is the Pectoral Sandpiper, sometimes still moving through in early November.

Some shorebirds winter on the Mendenhall Wetlands (Killdeer, Rock Sandpiper, Dunlin, and Wilson's Snipe). Dunlin and Rock Sandpipers often number more than 100 individuals.

A few species of shorebirds nest in the Juneau area and no doubt use the Wetlands for feeding and rearing of their young. The local nesters include Killdeer, Semipalmated Plover, Greater Yellowlegs, Spotted Sandpiper, Least Sandpiper, and Wilson's Snipe. Over the years we have found nests of Killdeer, Spotted Sandpiper, and Least Sandpiper on the Wetlands and have also observed nesting Greater Yellowlegs and Wilson's Snipe in nearby bogs. Nesting Least Sandpipers have not been observed in recent years.



Surfbirds and one Dunlin forage for food in a patch of mussels on the Wetlands.



American Golden-Plovers are one of the species that have experienced apparent population declines. They are generally uncommon on the Wetlands, and typically occur in numbers between one and 25.



Ruddy Turnstones occur in significant numbers on the Wetlands during the month of May. This species is listed in the U.S. shorebird conservation plan as one that is in decline.



Both Dunlins (above) and Red Knots (below, right) are shorebird species that are considered to be in decline.

Shorebird Conservation

Throughout the Western Hemisphere many shorebird populations are in serious decline, yet many of their stopover sites continue to be degraded and destroyed.

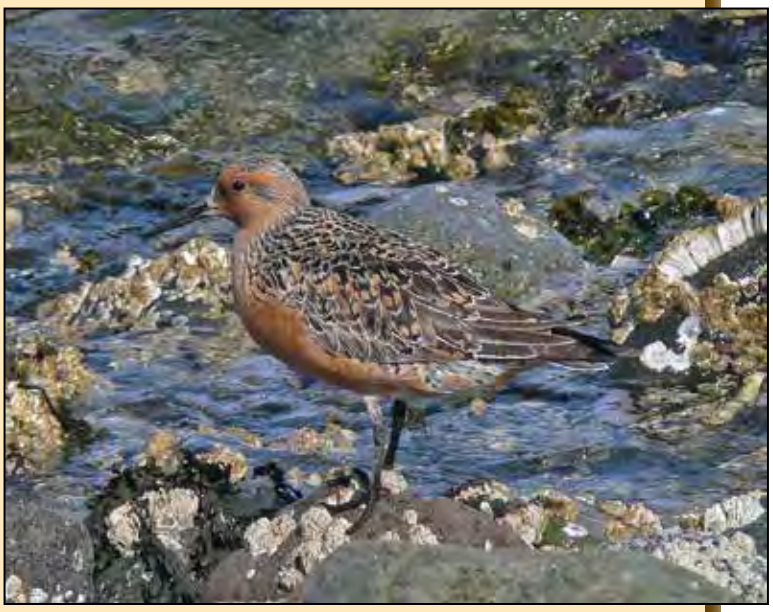
To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. Administered by the Manomet Bird Observatory, this program is a collaboration of more than 140 public and private organizations in seven countries. Part of the Network's work has resulted in the establishment of a U.S. Shorebird Conservation Plan whose primary goals are maintaining adequate shorebird habitat, and maintaining or restoring shorebird populations at the continental and hemispheric levels.

A complementary strategy called a Conservation Plan for Alaska Shorebirds was completed in 2000 and revised in 2008. It, too, was a collaboration and included the Alaska Department of Fish and Game, Audubon Alaska, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, USGS Alaska Science Center, and Wildlife Conservation Society.

A number of shorebird species that occur on Mendenhall Wetlands have experienced apparent declines in continental populations since 1970. For 16 of these species the declines are statistically significant. Those species include:

Whimbrel • Marbled Godwit • Surfbird • Dunlin • Buff-breasted Sandpiper
Short-billed Dowitcher • Black-bellied Plover • American Golden-Plover
Killdeer • Ruddy Turnstone • Red Knot • Sanderling • Semipalmated Sandpiper
Least Sandpiper • Wilson's Snipe • Red-necked Phalarope.

The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.



Canada Geese

Canada Geese are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose (*Branta canadensis fulva*), which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies.

Adults leave the Mendenhall Wetlands in early April for nesting, and adolescents leave in late June to go to remote areas for molting. In August they all begin returning to the Wetlands, where they remain until they're chased out by hunters or extreme freeze-up.

During hunting season these intelligent birds usually leave the Wetlands each morning before hunting begins and fly to Auke Lake or to areas near Horse and Colt Islands, where they spend the daylight hours. After sunset, when hunting ends for the day, they return to the Wetlands and feed under cover of darkness.

We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.



Vancouver Canada Geese are some of the most easily observed birds on the Wetlands. Flocks of several hundred can often be seen feeding near Egan Expressway and along the Dike Trail.

Other Geese

We know that Cackling Geese use the Wetlands during migration, though our records for numbers of this species are fairly sparse. The Cackling Goose was recently split out as a separate species from the Canada Goose. Also, one of the subspecies of the Cackling Goose overlaps in size with the Canada Goose, so it is difficult to distinguish them in the field. Nevertheless, small flocks of up to about 100 Cackling Geese have been recorded using the Wetlands.

Greater White-fronted Geese have been observed on the Wetlands in the hundreds during late April and early May, especially in recent years. Snow Geese also occur in small numbers during this period.



Up to 600 Greater White-fronted Geese have been counted on the Wetlands in the spring.

Mallards

Mallards are the duck most commonly seen on the Wetlands. Many are year-round residents that nest in the numerous ponds and lakes within the Mendenhall Valley and a few nest within the Wetlands.

Mallards occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals.

Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley.



Northern Shovelers were once seen in a flock of up to 800 birds on the Wetlands. We used to find nests of these birds on the Wetlands, but we have not in recent years.



Up to 5,000 Surf Scoters have been counted just off the mouth of Mendenhall River. These birds use the area for staging before migrating to their more northerly breeding grounds.



The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

Other dabbling ducks

Green-winged Teal, Northern Pintail, Northern Shoveler, and American Wigeon have been recorded in the hundreds, especially during April and May and again in August and September. Gadwall and American Wigeon overwinter regularly on the wetlands in small numbers of 10 to 100. The peak of spring migratory passage on the Wetlands is from the last week in April through mid-May. Fall passage is more protracted, lasting from August through October.

Diving ducks

The adjacent saltwater areas of Fritz Cove and Gastineau Channel, as well as ponds within Mendenhall Wetlands, provide habitat for several species of diving or sea ducks. The most numerous of these is the Surf Scoter, which occurs in the thousands in April and May. Other species that typically number in the hundreds include Greater Scaup, White-winged Scoter, Common Goldeneye, Barrow's Goldeneye, Bufflehead, and Red-breasted Merganser. Diving ducks almost completely abandon the Wetlands from June through September, with the majority travelling far inland to nesting grounds. Returning in October, most of these species occur regularly throughout the winter, although overwintering Surf Scoters have been fewer in recent years.



The most obvious pair of Bald Eagles are the two that hang out along the Dike Trail. This photograph was taken at one of their nests within the floatplane basin. In this year the eaglet hatched about May 22. The photo was taken on June 14, and the eaglet is in its second coat of down plumage.

Bald Eagle

In 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; but only about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Bald Eagles can be found on the Wetlands essentially any day of the year, although their spatial distribution differs among seasons. Usually 10 or so eagles can be seen on any given day. Assemblies of 100 or more eagles may gather to feed on Pacific sand lance and capelin – usually during April and May.

Despite the late-summer abundance of salmon on the Wetlands, our eagle counts in August and September have been relatively low. At this time eagles are probably widely dispersed on salmon streams throughout Southeast Alaska, and foraging on higher reaches of streams than the portions we observed in our surveys.

Other raptors

A variety of hawks, falcons and owls are attracted to the Wetlands, where they feed on rodents and other birds. The two species we see most often are Northern Harriers and Short-eared Owls.

The most commonly seen falcons are American Kestrel and Merlin, although Gryfalcon and Peregrine Falcon have occurred. The most commonly seen hawks are the Goshawk and Sharp-shinned Hawk, but some Rough-legged and Red-tailed Hawks have been sighted as well.



Northern Harriers are one of the most common birds of prey seen on the Wetlands during their migration. Here they hunt primarily for voles and smaller birds.



Northern Goshawks have been seen hunting on the Wetlands during nearly all months of the year. These fierce predators sometimes nest in the adjacent forest. This female goshawk was photographed at her nest on a hillside overlooking the Wetlands. She is still in immature plumage. According to those who study goshawks a small percentage of the females nest in their second year, before they achieve full adult plumage.

Gulls and Terns

Gulls are present on Mendenhall Wetlands year-round. The two common overwintering species, Mew Gull and Glaucous-winged Gull, sometimes number more than a thousand individuals. Both species concentrate at the Salmon Creek estuary in fall to feed on salmon eggs and carcasses. Bonaparte's Gulls also occur regularly in the hundreds, and occasionally more than 1,000, from mid-April to early October.



Bonaparte's Gulls frequently forage for sand lance and Dolly Varden at low tide in Gastineau Channel at the mouth of Fish Creek.

Glaucous-winged and Herring Gulls have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging.

Arctic Terns also use the Wetlands for feeding from late April to late August. The former spoil-island nesting colony in the central wetlands has been recently abandoned and we observed no nesting there in 2002 or 2003. In 2007, however, we found several pairs nesting at their old site. A number of terns presently nest near the Mendenhall Glacier Visitor Center, and these birds probably use the Wetlands for foraging.



In recent years an estimated 75 pairs of Glaucous-winged Gulls have nested on the rock face in front of Mendenhall Glacier. These gulls and their offspring forage for food on the Mendenhall Wetlands.



A colony of Arctic Terns used to nest in the vicinity of the floatplane basin, then later on one of the treeless sand islands. In recent years, except for 2007, they have not used the Wetlands for nesting.

Crows and Other Corvids



Black-billed Magpies are most often seen in the Wetland area around the golf course.

Northwestern Crows are common year-round residents on Mendenhall Wetlands. In winter and early spring, hundreds of crows use the Wetlands. We suspect these are aggregations of several flocks that gather together after the breeding season. We observed nesting crows in smaller groups during our 2002-2003 study on some of the spruce-covered islands on the Wetlands.

Other corvids frequently seen on the Wetlands are Common Ravens and Steller's Jays, which are year-round residents. Black-billed Magpies nest elsewhere, but small numbers of them come to the Wetlands in late fall and spend the winter.



As the tide recedes, flocks of Northwestern Crows gather to feed. We often see them turning over small rocks and probing in the rockweed looking for invertebrates.

Other songbirds

Other songbird species utilize Mendenhall Wetlands in large flocks for feeding. Hundreds of Tree Swallows, Violet-green Swallows, and Bank Swallows sometimes hawk for insects from late April through July. A colony of Bank Swallows has nested in the vertical sand banks along Mendenhall River in Brotherhood Park for a number of years.

The Wetlands appear to be an important feeding area for flocks of American Robin, American Pipit, Savannah Sparrow and Lapland Longspur during spring and fall migration, when these birds may occur in the hundreds. Flocks of Pine Siskins and Common Redpolls, numbering in hundreds of individuals, have also been seen using the Wetlands, often in late fall and early spring.



Mendenhall Wetlands is a magnet for swallows. The open vegetated portions seem to attract large numbers of insects on which various species of swallows can feed. In this photo a number of Tree Swallows have gathered to take a break.



Savannah Sparrows are the most common songbird that nests in the higher meadows. At times up to 100 of these birds have been counted.

The woods around the floatplane basin north of the Dike Trail are a magnet for migrating songbirds. This area is one of the best places in Juneau to see northbound warblers, thrushes, and sparrows in April and May.

There are two explanations for this phenomenon. The first relates to the character of the habitat and the second to its location.

Deciduous habitat is much less common in Southeast Alaska than coniferous forest. While deciduous belts are often found along Juneau's coastlines, development has displaced most patches large enough to attract large numbers of stopover migrants. The floatplane woodland, with its rich mix of coniferous and deciduous trees and shrubs, is outstanding in this regard.



The numerous Nootka lupine plants that occur in the upper Wetland meadows serve as handy perches for small ground-nesters such as this Lincoln's Sparrow.

The second reason songbirds are drawn to the floatplane woodland is its "island" character. Birders refer to the phenomenon as "the Central Park effect," a term used to describe the concentration of migrating songbirds in New York City's only large natural area.

Birds migrating through Southeast Alaska follow straits and corridors like Gastineau Channel, especially in spring when uplands are still snowy. Songbirds that prefer deciduous habitats pass northwestward over Mendenhall Wetlands, naturally gravitating to the floatplane basin's wooded "island" rather than the salt marsh on one side (which lacks protective cover) or the areas of intensive development on the other.



Song Sparrows are one of the few small songbirds that live on the Wetlands year-round.

Other than corvids, the only songbirds that are true Wetland residents year-round are Song Sparrows. A number of them nest on the fringes of the Wetlands and stay throughout the year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including gulls and terns, a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Mallards, Bald Eagles, Northwestern Crows, and Common Ravens.

Areas of Special Importance to Birds

See locations on map on pages 30-31.

The area around the Mendenhall River mouth is the most important feeding habitat for ducks and shorebirds on the Wetlands. At times Western Sandpipers, Surfbirds and Ruddy Turnstones have been seen here in the thousands. Northern Shovelers, Mallards and American Wigeon also feed in the sloughs and among the area's rockweed beds.

This area is also the premier spot to look for less common shorebirds such as American Golden-Plover, Pacific Golden-Plover, Whimbrel, Hudsonian Godwit, Bar-tailed Godwit, Marbled Godwit, Red Knot, and Baird's Sandpiper.

Mendenhall River Mouth



The mouth of Mendenhall River offers a variety of food-rich habitats for birds including sand, mud, barnacle/mussel/rockweed beds, algal mat communities, and a mix of fresh water and salt water.

Fritz Cove is an important feeding and staging area for a variety of sea ducks and other water birds. We have observed 3,000 to 4,000 Surf Scoters and up to 600 White-winged Scoters here. We've also seen sea ducks including Bufflehead, Barrow's Goldeneye, Common Goldeneye, Long-tailed Duck, and scaup in numbers of 20 to 100. Marbled Murrelets, Horned Grebes, Red-necked Grebes, and Red-breasted Mergansers also gather and feed in the cove, along with a few Pelagic Cormorants and Pigeon Guillemots.

Fritz Cove



Fritz Cove is an important staging area for thousands of Surf Scoters.

The western mudflat area near the mouth of Fish Creek is one of the top hotspots of bird activity for the entire Wetlands. Birds that feed within this area include Dunlins, Ruddy Turnstones, American Wigeon, Mallards, scaup, Lapland Longspurs, American Pipits, and hundreds of Western Sandpipers.

This is also a burrowing area for Pacific sand lance, which attract large concentrations of Bald Eagles, gulls, crows, and ravens.



Burrowing Pacific sand lance attract numerous Bald Eagles and crows to come and feed on them.

Lower Fish Creek Estuary



As part of their research in 2002-2003, Aaron Baldwin (left) and Mary Willson conducted a timed sample for invertebrate species and abundance at the mouth of Fish Creek.

At low tide the mouth of Fish Creek is an important feeding area for American Wigeon, Green-winged Teal, and Mallard. This may also be an important feeding area for swallows; up to 150 Barn Swallows and 100 Violet-green Swallows were reported hawking for insects here in July of 2002. This is also one of the best places in Juneau to observe Vaux's Swifts.

Gulls often use this area for resting. Eighty Bonaparte's Gulls were counted here in May 2002. Three hundred fifty Mew Gulls and 120 Glaucous-winged Gulls were counted in March 2003.

The area is also popular for feeding Northwestern Crows. We observed 200 of them in January 2003.

Upper Fish Creek Estuary



In April 2002 we counted 540 Mallards resting at high tide in the Fish Creek upper intertidal area.

The upper Fish Creek estuary is an important resting area for Mallards and other ducks at high tide. Ducks commonly feed in the lower estuary during low tides and rest in the upper area at high tides. We have also observed American Wigeon, Gadwall, and Northern Pintail using this area in numbers of 10 to 30.

Dowitchers, Dunlin, and Lesser Yellowlegs often feed in this area in groups of 10 to 50 individuals.

Salmon Creek Estuary



At the mouth of Salmon Creek ducks often rest on the sedge flats. Gulls concentrate here in August when spawning salmon return.

Salmon Creek estuary is an important feeding and resting area for ducks, shorebirds, and gulls. The area is heavily used for feeding by Mallards, scoters, and American Wigeons. Dunlin feed here in winter and early spring. When salmon are spawning, numerous Mew Gulls, Glaucous-winged Gulls, Bonaparte's Gulls, and Herring Gulls come to feed on their eggs. The spawning salmon also attract Bald Eagles, which feed on their carcasses.

Otter Pond

Otter Pond is an important feeding and resting area for waterfowl.

A variety of both dabbling and diving ducks are often seen feeding and resting here. We have seen Green-winged Teal, American Wigeon, Northern Shoveler, Northern Pintail, Blue-winged Teal, Bufflehead, Common Goldeneye, Canvasback, scaup, and Red-breasted Mergansers. These birds are usually in small numbers, but occasionally in groups of 10 to 30 per species.

Otter Pond is one of the best areas to observe birds from the Dike Trail. At its northeast end is a covered observation bench ("the Gazebo").



Otter Pond is often used as a resting area for Canada Geese. From here they can easily access the sedge flats for feeding.

Sedge Flats west of Otter Pond

These sedge flats are a very important feeding area for Canada Geese, especially in winter and spring. We have counted more than 600 Canada Geese feeding here during those times. High tides wash the snow away, exposing the sedge tips geese depend upon. Substantial numbers of Northwestern Crows and Western Sandpipers also occasionally feed in the intertwining muddy areas.



This area is one of the most extensive areas of Lyngbye sedge on the Wetlands. This sedge is an important food for Canada Geese and some other waterfowl.

Neilson Creek

Gastineau Channel and the flats in front of the Era heliport on Douglas Island are an important feeding area for waterfowl and gulls. Up to 1,000 Surf Scoters, 200 Mallards, 500 Mew Gulls, 130 Bonaparte's Gulls, and 100 Glaucous-winged Gulls have been counted feeding here. All feed in the barnacle/rockweed/mussel habitat but at different stages of the tide.

Ducks that feed in the area in smaller numbers (10-20 per observation) – American Wigeon, Bufflehead, Common Goldeneye, Green-winged Teal, and Northern Shoveler.



This area includes a mudflat with barnacle/mussel/ rockweed beds and the mouth of Neilson Creek.

Western Gastineau Channel



This area of deeper water is especially attractive to waterfowl.

Western Gastineau Channel is an important feeding and loafing area for a variety of waterfowl, especially in late winter and spring. We have counted up to 1,700 Surf Scoters, 160 scaup, 150 Mallards, 90 Red-breasted Mergansers, 80 American Wigeon, and 70 Green-winged Teal in this area. Up to 350 Bonaparte's Gulls and numerous Mew and Glaucous-winged Gulls use this area.

Lower Mendenhall River



Mendenhall River looking southwest from the Dike Trail.

Lower reaches of the Mendenhall River are important for seaducks and dabblers, especially in spring. Most of our records here are of birds resting and preening rather than feeding. The northern banks opposite the collapsed barge are a favored duck assembling area (elsewhere the river cutbanks rise more steeply from the water, restricting views of approaching predators). Dabblers use this area throughout the summer as well.

Wigeon Ponds



Wigeon Ponds are the only natural ponds on the Wetlands. All the others were formed by dredging or obstructions of stream flow.

Wigeon Ponds are important for several reasons. They are a resting area for Mallards, especially in April and May, when we have counted up to 500 of those birds at a time. They are also important as a feeding area for Canada Geese. We have counted over 100 geese here in June and have documented them feeding on Lyngbye sedges.

The ponds area also offers nesting habitat for waterfowl, and it supports the only known breeding population of western toads on the entire Wetlands.

Phalarope Slough

Phalarope Slough is an important feeding area for Lesser Yellowlegs and dowitchers. We have counted more than 100 of each species feeding here. The slough is loaded with small amphipods, which may be the main attraction for these shorebirds. Other species often seen feeding here include Greater Yellowlegs, Green-winged Teal, and Northern Shovelers.

Phalarope Slough is adjacent to the Dike Trail and is a popular spot for bird watching. It was named for the occasional Wilson's Phalarope seen here.



Large numbers of Lesser Yellowlegs often feed in Phalarope Slough.

Junk Car Slough

This small slough just to the east of the Gazebo usually attracts a small assemblage of feeding birds. We have counted up to 33 Long-billed Dowitchers, 25 Lesser Yellowlegs, 40 Mallards, 47 Lesser Snow Geese, and 10 each of Golden-crowned and White-crowned Sparrows feeding in or immediately adjacent to this slough.

The slough was named for the number of junk cars that used to line its landward bank. Like other sloughs along the Dike Trail it is a popular spot for watching birds.



Dowitchers are especially attracted to Junk Car Slough.

Miller-Honsinger Pond

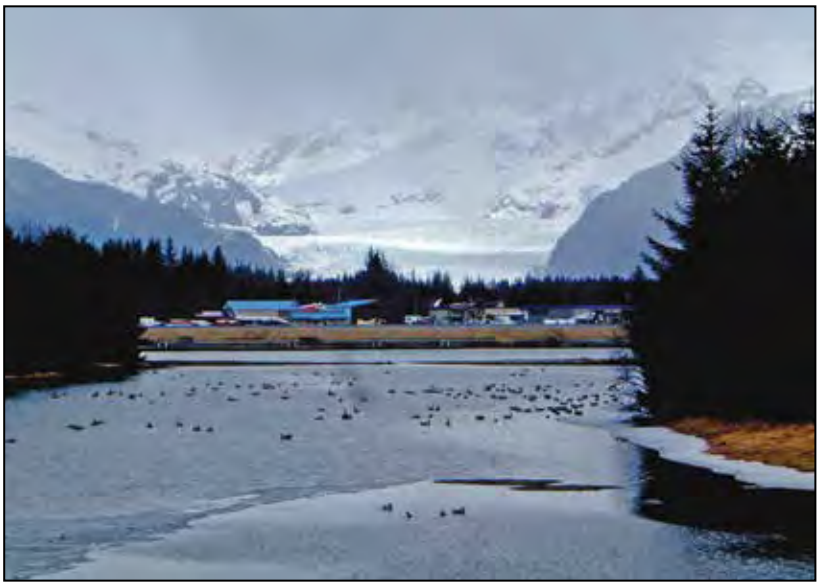
Miller-Honsinger dredge pond is an important resting and feeding area for small groups of waterfowl, although on occasion we have counted up to 225 Greater-white Fronted Geese, 72 Canada Geese, and 60 Mallards. We have also occasionally seen pairs of Trumpeter and Tundra Swans, and small numbers of American Wigeon, Bufflehead, Greater Scaup, Canvasback, Hooded Merganser, and Redhead.

Local birders sometimes come here to see raptors such as American Kestrel, Gyrfalcon, Northern Harrier, and Rough-legged Hawk. Adjacent brush and small trees on the surrounding dikes attract songbirds.



Miller-Honsinger Pond near the Temsco heliport has a variety of habitats that attract waterfowl and song birds.

Floatplane Basin



Canada Geese and other waterfowl often concentrate in the floatplane basin to feed on ditch-grass just as soon as the ice is out in spring. This area is currently being dredged to eliminate the ditch-grass.

Pioneer Marsh



Pioneer Marsh as viewed from the Juneau Pioneers' Home. Note the number of Mallards resting and feeding.

The floatplane pond and attached "fingers" an important feeding area for Canada Geese and other waterfowl during April and May, when we have observed up to 230 geese and 160 Mallards. A variety of other birds also feed here in spring, including American Wigeon, Bufflehead, Green-winged Teal, Greater Scaup, Northern Shoveler, Ring-necked Duck, Tundra and Trumpeter Swans, and Greater White-fronted Geese.

The woodland-meadow mosaic surrounding the ponds provides nesting habitat for a variety of songbirds. During point counts for a project in 2001 we determined that 13 bird species nested in the area, and estimated they consisted of 496 individuals (female and male). The most common species of nesting songbirds were Ruby-crowned Kinglets, American Robins, Hermit Thrushes, Wilson's Warblers, Yellow Warblers, and Yellow-rumped Warblers.

Pioneer Marsh is an important feeding area and refuge for Mallards and scaup during fall hunting season. In surveys between October and December, we have counted some 150 Mallards hiding in the tall grasses here. We have also observed up to 100 scaup diving and feeding in the more open waters of the nearby Twin Lakes in October and November.

Great Blue Herons frequently hunt for fish in this marsh, and Red-winged Blackbirds often nest here.

This is a good place to look for the less common waterbirds. We have seen American Coot, Hooded Mergansers, Ring-necked Ducks, Canvasbacks, a Ruddy Duck, and a Pied-billed Grebe. A pair of Sora Rails has probably been nesting here. It's the best place in Juneau to find American Coot and Hooded Mergansers; several of each species have been observed in recent years.

Our Favorite Wetlands Birding Walk

The Dike Trail near the airport is the premier birding spot in Juneau for waterfowl and shorebirds. It is also a good place to look for songbirds, particularly during the spring migration. The 1.5-mile Dike Trail begins at the end of Radcliffe Road. It is extremely popular and is used by birders, joggers, people walking dogs, and from September through December, duck hunters.

Simply walking along this trail can be a rewarding birding experience. Freshwater marshes on one side, and intertidal ponds and sloughs on the other attract a number of waterfowl and shorebirds, especially during high tides, when much of the Wetlands is covered with salt water. Also, various songbirds flit about the willows, alders, and spruce that line this trail.

A favorite birding adventure on the Wetlands takes about two to three hours. Begin this walk one to two hours before low tide for ease of following birds as well as maintaining dry feet (rubber boots are recommended). Start at the parking area at the end of Radcliffe Road and walk along the Dike Trail to the first and very obvious left turn in the trail. Instead of turning left, walk down a steep bank toward the river to find a well-worn path into the Wetlands. Head toward the mouth of Mendenhall River, paralleling the river.

During spring and fall migrations, look for Lapland Longspurs, American Pipits, and occasionally, Horned Larks in the vegetated areas. Check the tidal sloughs for waterfowl, including Northern Shovelers, American Wigeon, Northern Pintails, Green-winged Teal, and occasionally Cinnamon Teal, Eurasian Wigeon (rare), and Blue-winged Teal. In winter, look for Snow Buntings.

The greatest number of shorebirds (particularly in May) can be seen at the mouth of the river. When walking near the river mouth, be very aware of the tides—you can easily become trapped here on an incoming tide. Soft mud can also present problems.

You may see quite a variety of shorebird species, including Western, Least, Pectoral, Rock and Baird's Sandpipers. Other shorebirds to look for include Surfbirds, Dunlin, Whimbrels, dowitchers (both species), and Black-bellied and American Golden-Plovers.



Birders at the mouth of Mendenhall River look for birds during the Juneau Audubon annual Christmas Bird Count.

From the river mouth, turn northeastward toward the tree-covered high spots (islands at high tide). You will cross sloughs where shorebirds and dabbling ducks can be seen.

On the other side of the outermost dredge island (the one without any vegetation) look for concentrations of gulls, Arctic Terns, Bald Eagles, and sometimes Caspian Terns. These species concentrate here to feed on sand lance, Dolly Varden, and other fish.

From here turn toward the Dike Trail and follow the series of dredge islands. Watch for raptors, including Northern Harriers, Short-eared Owls, Peregrine Falcons, American Kestrels, and Merlins during migration. Look for Northern Shrikes perched on top of the spruce trees. In spring and summer you will see Lincoln's and Savannah Sparrows on the "islands." In winter you may see Snow Buntings. Just before arriving back at the Dike Trail, look for shorebirds in the sloughs. These are favorite feeding areas for both species of yellowlegs and dowitchers.


Golf Course
Casa del Sol Creek
Wigeon Ponds
Duck Creek
Jordan Creek
Juneau International Airport
Floatplane Pond
Dike Trail
Otter Pond
Junk Car
Phalarope
Mendenhall River
Mendenhall Penninsula
Western Mudflat
Gastineau Channel
Ninemile Creek
Fritz Cove
refuge boundary
Fish Creek
Cove Creek
MENDENHALL
0
1


MAINLAND
Miller-
Honsinger
Pond
Switzer
Creek
Lemon Creek
Sunny
Point
spoil
islands
Vanderbilt
Creek
Pioneer
Marsh
Hendrickson
Point
Twin
Lakes
Johnson
Creek
Hendrickson
Creek
Neilson
Creek
Salmon
Creek
refuge
boundary
DOUGLAS ISLAND
WETLANDS
2001
2 miles
N

Chart of Highest Daily Counts by Month

Birds

of

Mendenhall Wetlands

Checklist



JUNEAU AUDUBON SOCIETY

To learn which birds you might see at various seasons of the year, pick up a free copy of the Birds of Mendenhall Wetlands Checklist *from the small plastic box attached to the large refuge sign at the start of the Dike Trail.*

THE CHART ON THE FOLLOWING PAGES shows the variety and seasonal abundance of birds on Mendenhall Wetlands since 1986. It compiles data from 17,400 observations. (One observation, for example, could be 30 crows counted on a particular date.) The observations were gathered from a variety of sources that included the following:

- Paul Suchanek's observations from 1990 through 2008. Paul has recorded more than 15,000 observations of birds on the Wetlands. His observations form a solid foundation for the phenology data base.

- Cain, S.L., J.I Hodges, E. Robinson-Wilson. 1988. *Bird use of the Mendenhall Wetlands in Juneau, Alaska.* U.S. Fish & Wildlife Service. Juneau Office. These researchers conducted bird surveys from February 19, 1986 to February 12, 1987. They visited study units near the airport twice a week, and more distant units twice a month. Their emphasis was on waterfowl and other highly visible species, but they counted all birds seen.

- Bob Armstrong and Richard Carstensen's point counts of birds on airport property from January through December 2002. This work was done for SWCA, consultants hired to produce the Environmental Impact Statement for expansion of the Juneau Airport. Counts were conducted monthly throughout the year, with additional surveys during the breeding season.

- Armstrong, R.H., R.L. Carstensen, and M.F. Willson. 2004. *Hotspots: Bird survey of Mendenhall Wetlands, April 2002 to May 2003*. Complete bird surveys of the Mendenhall Wetlands were conducted monthly or more often.

- Observations by local birders: Laurie Craig, Richard Gordon, Patty Rose, Mark Schwan, Gus van Vliet, and Steve Zimmerman.

Most Numerous Birds

To date, 15 species have been observed on the Wetlands in numbers greater than 1,000 at a time:

Canada Goose • Mallard • Surf Scoter • American Golden Plover (one-time event) • Ruddy Turnstone • Surfbird • Semipalmated Sandpiper • Western Sandpiper • Least Sandpiper • Pectoral Sandpiper • Bonaparte's Gull • Mew Gull • Glaucous-winged Gull • Northwestern Crow • Common Redpoll

Nine other species have been counted in numbers greater than 500 at one time:

Greater White-Fronted Goose • American Wigeon • Northern Shoveler • Greater Scaup • White-winged Scoter • Black Turnstone • Dunlin • Short-billed Dowitcher • Lapland Longspur

Symbols on the chart

Different size circles, squares, and rectangles represent the highest number of birds seen on at least one day during a particular month. These figures give a good sense of bird numbers by month, and demonstrate the real and potential value of Mendenhall Wetlands for accommodating birds.

Wi+, Sp+, Su+, Fa+ In a few cases, when observations were taken for the Birds of Mendenhall Wetlands *Checklist,* we have records that a species was present, but we don't know how many individuals were seen or in which month. For these observations we assign a (+) sign rather than a number, and indicate season using the abbreviations used in the *North American Birds* monographs: **Wi** (winter - December through February), **Sp** (spring - March through May), **Su** (summer - June through July), and **Fa** (fall - August through November).

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008

• = 1 - 9 ● = 10 - 99 ⬤ = 100 - 499 ■ = 500 - 999 ■ = 1000 or more

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SWANS, GEESE, DUCKS												
Greater White-fronted Goose				●	■	•		●	●	•		
Emperor Goose				•								
Snow Goose				●	●	●			●	•	•	
Ross's Goose					•							
Brant	•				●	●	•	•				
Cackling Goose				•	⬤	•			•	●		•
Canada Goose	■	■	■	●	●	●	•	●	●	●	■	■
Trumpeter Swan	•	•	•	●	•			•	•	●	●	•
Tundra Swan			•	•	•				•	⬤	•	
Wood Duck	•				•							
Gadwall	●	●	●	●	●	●	●	•	•	•	•	●
Eurasian Wigeon	•	•	•	•	•	•				•	•	•
American Wigeon	⬤	⬤	⬤	⬤	⬤	●	●	⬤	⬤	■	■	■
Mallard	■	■	■	■	⬤	⬤	●	⬤	⬤	■	⬤	■
Blue-winged Teal				•	●	●	•	•				
Cinnamon Teal				•	•	•	•			•		
Northern Shoveler	•		•	●	■	●	●	●	●	●	•	•
Northern Pintail	●	●	●	⬤	⬤	●	●	⬤	●	●	•	•
Green-winged Teal	●	⬤	⬤	⬤	⬤	●	●	⬤	●	⬤	●	⬤
Canvasback	•	•	•	●	•	•			•	●	●	•
Redhead				•	●	•	•			•	•	
Ring-necked Duck	•			•	●				●	●	•	
Greater Scaup	⬤	⬤	■	■	⬤	●	●	•	●	⬤	⬤	⬤
Lesser Scaup	•	•	•	●	●	•	•		•	•	•	•
Scaup spp.	●	⬤	⬤	⬤	■	●		●	●	⬤	•	⬤
Steller's Eider							•					•
King Eider					•							
Harlequin Duck			•	●	•	•			•	●		•
Surf Scoter	■	■	⬤	■	■	⬤	⬤	●	•	⬤	●	⬤
White-winged Scoter	●	●	⬤	⬤	■	⬤	●			⬤	●	⬤
Black Scoter			•	•	•					•		
Long-tailed Duck	●	•	●	●	⬤	●	•	•		●	●	•
Bufflehead	⬤	⬤	⬤	⬤	●	•	•		•	●	⬤	⬤
Common Goldeneye	⬤	●	●	●	⬤	•		•	•	●	●	●
Barrow's Goldeneye	●	⬤	⬤	⬤	⬤	•	•	•	●	●	●	⬤
Hooded Merganser	•	•	•	•	•			•	•	•	•	•
Common Merganser	●	●	●	●	•	●	•	•	•	•	•	●
Red-breasted Merganser	●	●	●	⬤	⬤		•		●	●	●	•
Ruddy Duck				•	•					•		



Canada Goose



Mallard

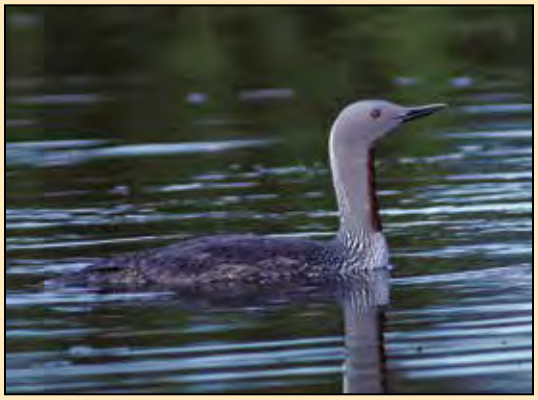


Surf Scoter



Common Goldeneye

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008



Red-throated Loon



Great Blue Heron



Bald Eagle

• = 1 - 9 ● = 10 - 99 ⬤ = 100 - 499 ■ = 500 - 999 ■ = 1000 or more

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
GROUSE, PTARMIGAN												
Willow Ptarmigan			•									
Rock Ptarmigan	Wi+											
Sooty Grouse			•	•	•	•						
LOONS												
Red-throated Loon	•		•		•		•		•	•	•	•
Pacific Loon	●	●	●		•	•	•			•	•	•
Common Loon	•	•	•	•	•	•				•	•	•
Yellow-billed Loon	•	•	•		•					•	•	•
GREBES												
Pied-billed Grebe					•				•	•		
Horned Grebe	●	●	●	⬤	●	•	•	•	•	●	●	●
Red-necked Grebe	•	•	•	●	●				•	•	●	•
Eared Grebe					•							
Western Grebe			•	•	•						•	
CORMORANTS												
Pelagic Cormorant	•		•	•						•	•	•
HERONS												
Great Blue Heron	•	•	•	•	•	•	•	●	•	•	•	•
Great Egret	•					•						•
Snowy Egret					•							
Green Heron						Su+						
Black-crowned Night-Heron					•	Su+						
NEW WORLD VULTURES												
Turkey Vulture									•			
HAWKS, EAGLES												
Osprey					•		•	•	•	•		
Bald Eagle	●	●	●	⬤	●	●	●	●	●	●	●	●
Northern Harrier			•	•	•	•		•	•	•	•	•
Sharp-shinned Hawk	•		•	•	•	•	•	•	•	•	•	•
Northern Goshawk	•		•	•	•	•		•	•	•	•	•
Swainson's Hawk					•							
Red-tailed Hawk				•	•	•		•	•	•	•	
Rough-legged Hawk				•						•	•	•
Golden Eagle	Wi+			•								
FALCONS												
American Kestrel	•		•	•	•			•	•	•	•	
Merlin		•	•	•	•	•	•	•	•	•	•	•
Gyrfalcon		•	•	•					•	•	•	•
Peregrine Falcon				•	•		•	•	•	•	•	

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008

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Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RAILS, COOTS												
Virginia Rail										•		
Yellow Rail							•					
Sora				•	•	Su+						
American Coot				•	•					•	•	
CRANES												
Sandhill Crane				•	•	•			⬤	•		
PLOVERS												
Black-bellied Plover				●	⬤	•	•	•	●			
American Golden-Plover				•	■	•	•	•	•	•		
Pacific Golden-Plover				•	●			•	•	•		
Semipalmated Plover				●	●	•	●	●	•			
Killdeer	•	●	●	•	•	•	•	●	●	●	●	●
OYSTERCATCHERS												
Black Oystercatcher				•	•	•						
AVOCETS												
American Avocet						•						
SANDPIPERS												
Spotted Sandpiper					•	•	•	●	•			
Solitary Sandpiper				•	•		•	•	•			
Wandering Tattler					•		•	•				
Greater Yellowlegs	•		•	●	●	●	⬤	⬤	●	•		
Lesser Yellowlegs				●	●	●	⬤	⬤	•	•		
Upland Sandpiper					•		•	•	•			
Whimbrel					●	●	•					
Hudsonian Godwit				●	●	•	●	●				
Bar-tailed Godwit					•	•	•	•	•			
Marbled Godwit				•	•	•						
Ruddy Turnstone				•	■	•	⬤	●				
Black Turnstone				⬤	■		•	●		•		
Surfbird				■	■		■	⬤		●		
Red Knot					●	•	•					
Sanderling					●	●	•	•	•			
Semipalmated Sandpiper					⬤	●	■	●	•			
Western Sandpiper				■	■	●	■	⬤	⬤			
Long-toed Stint					•							
Least Sandpiper				■	■	●	⬤	■	●			
White-rumped Sandpiper					•							
Baird's Sandpiper				•	●		•	•	•			
Pectoral Sandpiper				•	■		●	●	⬤	●	•	
Sharp-tailed Sandpiper					•			•	•	•		



American Coot



Black-bellied Plover



Lesser Yellowlegs



Ruddy Turnstone

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008



Wilson's Snipe



Bonaparte's Gull



Lesser Black-backed Gull



Caspian Tern (large)
Arctic Tern (small)

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Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rock Sandpiper	•	●	●	●	●			•		●	•	●
Dunlin	●	●	●	■	■	•			•	●	●	●
Curlew Sandpiper					•							
Stilt Sandpiper				•			•	●	•			
Buff-breasted Sandpiper					•			•	•			
Ruff					•			•	•			
Short-billed Dowitcher				●	■	•	●	●	•	•		
Long-billed Dowitcher					●	•	●	●	●	●		
Dowitcher spp.				●	●		●	●	●			
Wilson's Snipe	•		•	•	•	•	•	•	•	●	•	•
Wilson's Phalarope					•	•	•	•				
Red-necked Phalarope					•		•	•				
GULLS, TERNS												
Franklin's Gull						•	•					
Little Gull					•							
Black-headed Gull						•						
Bonaparte's Gull		●		■	■	■	■	■	●	●	●	•
Mew Gull	●	■	■	■	●	●	●	■	●	■	●	■
Ring-billed Gull				•	•	•	•	•	•	•	•	
California Gull			•	•	•	●	●	●	●	●		•
Herring Gull		•	●	●	●	●	●	●	●	●		•
Thayer's Gull	•	•	•	●	●	•	•	•	•	•	•	●
Lesser Black-backed Gull			•	•	•	•	•	•	•	•		
Slaty-backed Gull			•					•		•	•	
Western Gull							•	•				
Glaucous-winged Gull	●	■	■	■	●	●	●	■	●	■	●	●
Glaucous Gull			•	•	•	•	•	•	•			•
Sabine's Gull							•					
Black-legged Kittiwake					●	●	●	•	•	•	•	•
Caspian Tern				•	●	●	●	●				
Black Tern					•							
Arctic Tern				●	●	●	●	●				
JAEGERS												
Parasitic Jaeger					•			Fa+				
ALCIDS												
Common Murre	•	●	●								•	•
Pigeon Guillemot			•	•	•	•	•	•				
Marbled Murrelet	●	•	•	●	●	●	•	•	●	•	•	●
PIGEONS, DOVES												
Rock Pigeon				•	•							
Mourning Dove							•					

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008

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Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
OWLS												
Western Screech-Owl						•	•					
Great Horned Owl			•			•		•			•	•
Snowy Owl										•		
Northern Hawk Owl												•
Northern Pygmy-Owl	•		•								•	
Barred Owl										•		
Short-eared Owl	•	•	•	•	•	•			•	•	•	•
Boreal Owl	Wi+										•	
Northern Saw-whet Owl	Wi+		Sp+									
NIGHTHAWKS												
Common Nighthawk								•	•			
SWIFTS												
Black Swift			Sp+									
Vaux's Swift					●	●	●	●	⬤			
HUMMINGBIRDS												
Rufous Hummingbird				•		•	•	●				
KINGFISHERS												
Belted Kingfisher	•	•	•	•	•	•	•	•	•	•	•	•
WOODPECKERS												
Red-breasted Sapsucker			•	•	•	•	•	•	•			
Downy Woodpecker	•	•	•	•	•			•		•	•	•
Hairy Woodpecker	•	•	•	•	•	•	•	•	•	•	•	•
Northern Flicker				•	•	•		•	•	•	•	
FLYCATCHERS												
Olive-sided Flycatcher					•	•		•	•			
Western Wood-Pewee					•	•		•	•			
Alder Flycatcher						•	•	•				
Hammond's Flycatcher					•			•	•			
Pacific-slope Flycatcher					•	•	•	•	•			
Say's Phoebe									•			
Western Kingbird						•		•				
Eastern Kingbird						•						
Scissor-tailed Flycatcher			Sp+				•					
SHRIKES												
Northern Shrike	•	•	•	•					•	•	•	•
VIREOS												
Cassin's Vireo					•							
Warbling Vireo					•	•			•			



Short-eared Owl



Downy Woodpecker



Western Wood-Pewee

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008



Common Raven



Chestnut-backed Chickadee



American Dipper



Hermit Thrush

• = 1 - 9 ● = 10 - 99 ⬤ = 100 - 499 ■ = 500 - 999 ■ = 1000 or more

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
JAYS, MAGPIES, CROWS												
Steller's Jay	●	●	●	●	•	•	•	•	•		•	
Black-billed Magpie	●	●	●	●					•	●	●	●
Northwestern Crow	⬤	■	⬤	⬤	⬤	●	⬤	⬤	⬤	⬤	⬤	⬤
Common Raven	●	●	•	●	●	•	•	●	•	●	●	●
LARKS												
Horned Lark	•			●	●				•	•	•	•
SWALLOWS												
Tree Swallow				●	●	●	⬤	●				
Violet-green Swallow				●	●	⬤	⬤	●	•			
Northern Rough-winged Swallow					•	•	•					
Bank Swallow					●	●	⬤	●	•			
Cliff Swallow				•	•	●	•	•	•		•	
Barn Swallow					●	●	●	⬤	●			
CHICKADEES												
Mountain Chickadee	Wi+											
Chestnut-backed Chickadee	•	•		•	•	•	•	•		•	•	●
Boreal Chickadee										•		
NUTHATCHES												
Red-breasted Nuthatch		•	•	•	•	•		•	•	•	•	•
CREEPERS												
Brown Creeper		•	•					•	•	•	•	•
WRENS												
Winter Wren	•	•	•	•	•	•	•	•	•	•	•	•
DIPPERS												
American Dipper	•	•	•		•		•	•			•	•
KINGLETS												
Golden-crowned Kinglet	•	●	•	•	•	•	•	•	•	•	•	•
Ruby-crowned Kinglet	•		•	●	●	●	•	●	●	●	•	•
THRUSHES												
Mountain Bluebird				•	•					•		
Townsend's Solitaire				•	•			•				
Swainson's Thrush					•	•	•					
Hermit Thrush				•	•	•	•	•	•	•		•
Eyebrowed Thrush								•				
Dusky Thrush					•							
American Robin			●	⬤	●	●	●	●	•	•	•	•
Varied Thrush		•	•	•	●	•	•	•	•	•	•	•
MOCKINGBIRDS												
Northern Mockingbird							•					

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008

• = 1 - 9 ● = 10 - 99 ⬤ = 100 - 499 ■ = 500 - 999 ■ = 1000 or more

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
STARLINGS												
European Starling	•		●	•	●	●	⬤	●	●			●
PIPITS												
Eastern Yellow Wagtail						•						
Red-throated Pipit									•		•	
American Pipit	•	•	•	⬤	⬤	•		●	●	●	•	•
WAXWINGS												
Bohemian Waxwing	Wi+							Fa+				
Cedar Waxwing				●		•	•	Fa+				
WOOD WARBLERS												
Tennessee Warbler					•	•	•	•	•			
Orange-crowned Warbler				•	•	•	•	●	•	•	•	
Yellow Warbler				•	•	●	•	•	•	•		
Magnolia Warbler								•				
Cape May Warbler					•							
Yellow-rumped Warbler				●	●	●	•	●	•	•	•	
Townsend's Warbler				•	•	•	•	•	•			
Palm Warbler				•							•	
Blackpoll Warbler					•	•		•				
American Redstart					•	•		•	•			
Northern Waterthrush					•			•	•			
Mourning Warbler								•				
MacGillivray's Warbler								•	•			
Common Yellowthroat					•	•	•	•	•	•		
Wilson's Warbler					•	●	•	•	●	•	•	
TANAGERS												
Western Tanager					•			•				
SPARROWS, BUNTINGS												
American Tree Sparrow	●	•	•	•	•				•	•	●	●
Chipping Sparrow						•		•	•	•		
Brewer's Sparrow					•	•			•			
Savannah Sparrow	•		•	●	⬤	●	●	⬤	●	●		•
Fox Sparrow			•	•	•	●	•	•	●	●		•
Song Sparrow	●	●	•	•	●	●	•	●	●	●	•	•
Lincoln's Sparrow				•	•	•	•	●	•	•		
Swamp Sparrow					•		•					
Harris's Sparrow	Wi+									•		
White-crowned Sparrow				•	●			•	●	•	•	
Golden-crowned Sparrow				●	●			•	●	●		
Dark-eyed Junco	●	●	●	●	●	•	•	•	●	●	●	●
Lapland Longspur	•		•	⬤	⬤			⬤	■	⬤	●	•



American Pipit



Yellow-rumped Warbler



Savannah Sparrow



Song Sparrow

Highest Daily Count of Birds on Mendenhall Wetlands - by Month, 1986-2008



Snow Bunting



Common Redpoll



Pine Siskin

• = 1 - 9 ● = 10 - 99 ⬤ = 100 - 499 ■ = 500 - 999 ■ = 1000 or more

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Smith's Longspur					•			•				
Chestnut-collared Longspur					•							
Snow Bunting	●	●	●	•						•	●	⬤
McKay's Bunting	•											•
CARDINAL ALLIES												
Lazuli Bunting						•	•					
Dickcissel					•							
BLACKBIRDS												
Red-winged Blackbird	•	•		•	•	●	●	●	•	•	•	
Western Meadowlark									Fa+			
Yellow-headed Blackbird				Sp+		•						
Rusty Blackbird	•		●	•	•			•	●	•		•
Brewer's Blackbird										•		
Brown-headed Cowbird					•	•		•				
FINCHES												
Brambling				•								
Gray-crowned Rosy Finch				●								
Pine Grosbeak	•	•			•						•	•
Red Crossbill	•	●	●	●	●	●	●	●	⬤	●	●	●
White-winged Crossbill	●	●	●	•	●		•	●	•		●	●
Common Redpoll	●	■	⬤	■	•				⬤		⬤	⬤
Hoary Redpoll		•	•									
Pine Siskin	●	●	⬤	●	●	●	●	●	●	⬤	⬤	⬤
American Goldfinch					•					•		

Origins of Birds Seen on Mendenhall Wetlands

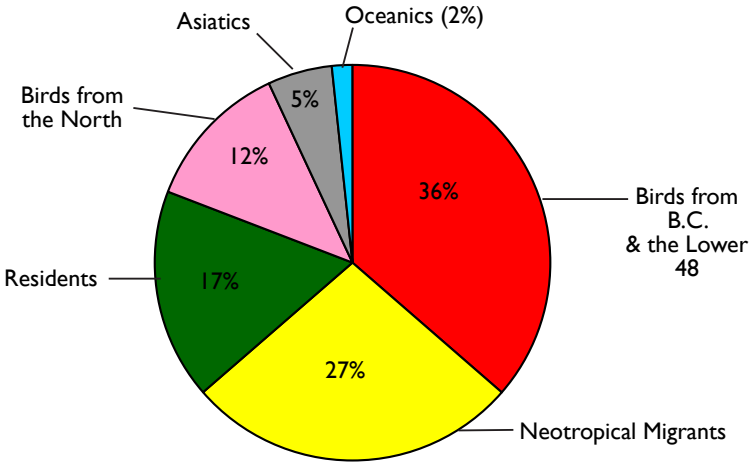


This Greater Yellowlegs just finished bathing in a pool on the Wetlands. These birds are neotropical migrants and may have flown more than 9,000 miles from Tierra del Fuego at the southern tip of South America to Mendenhall Wetlands.

MOST OF THE 256 SPECIES OF BIRDS SEEN ON MENDENHALL WETLANDS are found on the Wetlands for only part of the year. Most (83 percent) of those are migrants who stop on the Wetlands to rest and feed on their way north or south, or come to the region to nest or spend the winter. Only 17 percent of the species live here as year-round residents.

The pie graph below shows what we know about these various groups. The narrative on the next pages tells more.

Where the Birds Come From



Some 256 species of birds have been seen on Mendenhall Wetlands. This chart groups those species according to where we think most of their members come from.



Rock Sandpipers nest farther west and north in Alaska in the Aleutians and islands of the Bering Sea. Up to 250 at a time have been seen on the Wetlands in winter.

• Neotropical Migrants (70 species): These birds winter in Mexico, Central America, or South America, then migrate to Southeast Alaska to breed or travel farther northward. They include Greater Yellowlegs, Cinnamon Teal, American Golden Plover, Hudsonian Godwit, Rufous Hummingbird, Olive-sided Flycatcher, and Yellow Warbler.

• Birds from British Columbia and the Lower Forty-eight (93 species): In winter most swans and several species of dabbling ducks migrate only as far as farmers' fields, productive marshes, and national wildlife refuges to the south. Northern Pintails have strong ties to California, where an estimated 85% of the birds that breed in Alaska overwinter. Other birds that migrate only to B.C. or the Lower Forty-eight include many of the sparrows and blackbirds.

• Birds from the North (31 species): About an eighth of the bird species we see on the Wetlands breed in areas north and west of Southeast and migrate here to spend the winter. Those include several of the diving ducks such as Bufflehead, Long-tailed Duck, Common and Barrow's Goldeneye, and White-winged Scoters; Rock Sandpipers, which winter in Southeast Alaska and usually fly west and north to nest in the Aleutians



This Arctic Tern nested on the Wetlands in 2007. It may have flown more than 9,000 miles from Antarctica, where these terns live during northern winters.

and islands of the Bering Sea; and perhaps Snow Buntings and the occasional Snowy Owl or Gyrfalcon.

- **Oceanics (4 species):** A small number of the species seen on the Wetlands come from or across the open ocean, often from islands and distant continents. Most common among these is the Arctic Tern. Rare Oceanic species on the Wetlands include Pacific Golden-Plover, Parasitic Jaeger, and Red-necked Phalarope.
- **Asiatics (14 species):** Only 14 of the 256 species seen on the Wetlands come from Asia, but these are the species that serious birders may find especially exciting. Though many species of Asiatics occur regularly in western Alaska, most of those seen on the Wetlands are vagrants. They have probably come by accident—perhaps lost or blown off course by a storm. However, at least one, the Eurasian Wigeon, seems to occur every year on the Wetlands in small numbers.
- **Residents (44 species):** Birds seen year-round on the Wetlands include Bald Eagles, Northwestern Crows, Common Ravens, Glaucous-winged Gulls, Marbled Murrelets, American Dippers, and Song Sparrows.



This Bald Eagle with its young was photographed at a nest on one of the small islands on the Wetlands. Nesting eagles typically spend the entire year near their nest sites.



The Lesser Black-backed Gull originates from Asia. This bird was photographed at the gull nesting colony near Mendenhall Glacier. A Black-backed has been seen foraging on Mendenhall Wetlands for about 20 years.

Worldwide Connections

As one of only three well-documented staging areas for migrating birds in Southeast Alaska, Mendenhall Wetlands is undeniably a crucial link in the yearly cycle of many species. We have evidence of its global connections in records for a variety of species:

■ A male Snow Goose seen on Mendenhall Wetlands May 3, 2002, had hatched in summer 2000 and been banded on July 14, 2001, on Wrangel Island, at 72 degrees N in Russia's Chukchi Sea.

■ A male Brant banded on Banks Island, Canada on August 1, 1992, was sighted during the 1997 spring migration in Nanvak Bay, Alaska, and during the winter of 1998 in Baja California. It was seen on the Wetlands on May 14-21, 2003.

■ Two banded Tundra Swans were seen by Paul Suchanek on October 19, 2008. One was marked as an adult male just south of King Salmon, Alaska, on July 22, 2006. The other was marked as an adult female northeast of Bethel, Alaska, July 24, 2008.

■ Two White-winged Scoters were captured in the Juneau area and tagged with satellite transmitters in February 2001. One was captured at Middle Point and the Other at Spuhn Island. They were then tracked inland to various locations in Yukon Territory, Canada. One returned to Juneau on August 3 and the other on October 2, 2001.

■ A female Western Sandpiper was color-banded in her hatch years in La Paz, southern Baja, Mexico, in September 2001 by Daniel Galindo Espinosa, a Mexican university biologist. She was seen by Paul Suchanek on April 30, 2002, on Mendenhall Wetlands.

■ A radio-tagged Short-billed Dowitcher, initially tagged at San Francisco Bay by USGS biologist John Takekawa and others, was relocated at Gray's Harbor, Washington, on May 9, 2001, then on the Wetlands by Gwen Baluss on May 17, eight days later.

■ A Red Crossbill, banded by Ralph W. Williams near the Wetlands on May 13, 1991, was recovered in St. Albert, Alberta, Canada, on May 9, 1992.

■ A male Golden-crowned Sparrow was banded after his hatch year by Ralph W. Williams near the Wetlands on April 18, 1990. He was recovered in Victoria, B.C., Canada, on November 2, 1992.

More connections will undoubtedly be documented in years to come.

The male Snow Goose in the photo below was seen on Mendenhall Wetlands May 3, 2002. It had been banded July 14, 2001, and had hatched in summer 2000 on Russia's Wrangel Island in the Chukchi Sea.



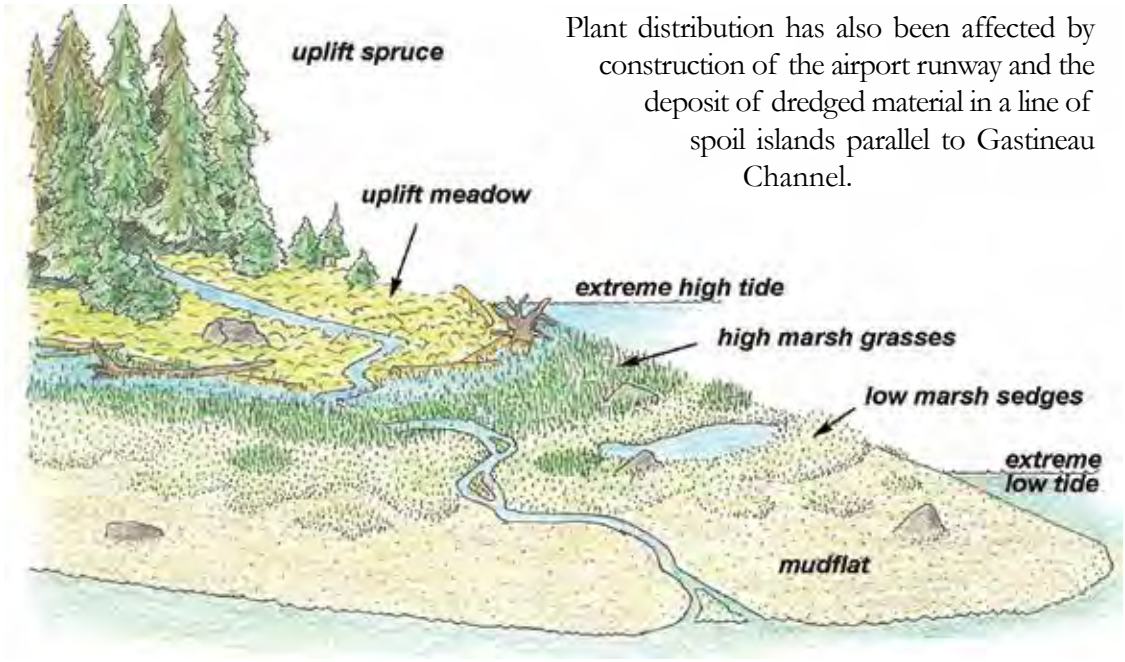


Vegetation

As glaciers in Southeast Alaska retreat and decrease their weight on the land, the Mendenhall Wetlands area is "rebounding," rising above sea level a little more than half an inch per year. This rate currently exceeds the global rise of sea level. Since wetlands plants are fine-tuned to living with the effects of tidal changes, the distribution of vegetation types on the Wetlands has changed dramatically—and it continues to change. As the land rises, what we recognize as "zones" of typical plant distribution change. Plants typically found in meadows move into high marsh once exposure to tides there has decreased; high marsh plants invade low marsh, once exposure to salt water there has decreased, and so on.

Plant distribution has also been affected by construction of the airport runway and the deposit of dredged material in a line of spoil islands parallel to Gastineau Channel.

Lyngbye sedge is the dominant plant in the low marsh zone of the Wetlands. It's an important food for Canada Geese.



On the Wetlands you can see that plant types typically distribute themselves in "zones," depending on exposure to the tides.



From the Dike Trail you can see Mendenhall Glacier in the distance, with fireweed and cow parsnip in the foreground.

An uplift meadow near the golf course is covered with lupine and buttercups.

Zones of vegetation

As part of Southeast Alaska's temperate rainforest, the Mendenhall Wetlands are surrounded by conifer forest. In some places, old-growth forest on steep bedrock ends abruptly at the high tide mark. But more often mature forest dominated by hemlock is separated from the open meadows and marshes of the Wetlands by younger stands of Sitka spruce. Growing on land that has risen above the tides during the past century, these spruces grow either as a tight belt of even-aged forest, or as single or small groups of trees and saplings colonizing outward into the wetlands.



Closed spruce stands are the preferred nesting habitat for Northwestern Crows. Scattered spruces serve as perches for birds such as Merlin. Smaller birds such as Song and Lincoln's Sparrows nest in or near them. Below the spruce groves are uplift meadows, former tidelands that have risen above the high tide line. Uplift meadows foster a great variety of plants, and plant species vary from place to place, depending on the substrate and the source of seeds for initial colonists. Meadow plants provide habitat for Savannah Sparrows, which nest here in great numbers.

Although many meadow plants offer palatable grazing for mammals such as deer, bear, and porcupine, they are much less attractive to grazing birds such as geese, which cannot tolerate the tannins and other compounds the plants produce as a defense against being eaten.

Uplift meadows on the Wetlands end at the extreme high tide line, about 20 feet above zero tide level. Here the meadows give way to the salt marsh zone, an intertidal

community sheltered from waves. This is an estuarine environment where salt and fresh water mingle. Though this zone is substantially vegetated with grasses and sedges, it provides little hiding cover. Birds using this area tend to forage in large groups, where more pairs of eyes and ears can be on the alert for predators.

Wetland ecologists ofen divide the salt marsh into high marsh – dominated on the Wetlands by several species of grasses – and low marsh – dominated by Lyngbye sedge.

The high marsh extends from extreme high water to 16 or 17 feet above zero tide. It's populated mostly by three species of grasses: rye grass, hair grass, and foxtail barley.

High marsh grasses are used by migrating flocks of seed-eaters like Snow Buntings and Lapland Longspurs. Crows often forage among them, and grassy swards serve as resting habitat for birds such as geese and mallards.

The grasses also support long-tailed voles, which attract hunters like Northern Harriers, American Kestrels, and Short-eared Owls. High tides reach up into these grasses several times a month, forcing brief evacuation by voles, and destroying the eggs of ground-nesting birds that have placed their nests too far below the uplift meadow. In early spring, freshly sprouting grasses attract migrant grazers like Snow and Greater White-fronted Geese. In general, though, grasses are more fibrous and less palatable to grazers than the sedges that dominate the low marsh.



A Snow Bunting is feeding on the seeds of beach rye, one of the three most common grasses in the high marsh.

Lyngbye sedge, the dominant plant in the low marsh zone, is an important spring forage plant for geese. It also produces large numbers of seeds. Even though the seeds rarely germinate in the salt marsh (the plant spreads largely by vegetative propagation), sedge seeds make up a large part of the fall diet of resident Vancouver Canada Geese. The shift from spring focus on sprouts to autumn seed consumption is driven by nutritional requirements as well as food availability. Protein and nitro-



Photo by Richard Carstensen

These Lyngbye sedges in the low marsh have been nipped off by geese. Sedges are less fibrous and more palatable than grasses. They can be distinguished from grasses by stems that are triangular in cross-section. The stems of grasses are round.



Sea milkwort (above) and arrowgrass are dominant plants in succulent marsh.

gen requirements of Canada Geese are highest in spring, while the need for carbohydrates increases in fall. Lyngbye sedge is also critical for geese in the winter; they would not survive on Mendenhall Wetlands without it. As its greenery fades in the fall, a good deal of the nutrient value of the sedge moves down to the top of the root stock, where it is available for the initial growth surge in spring. Geese dig out this high-quality food, which provides a good deal of their conditioning for nesting.

There is evidence that sedge seed also feeds mallards, teal and pintails: studies of the crop contents of birds on the Stikine River showed Lyngbye sedge was by far the most important food for these birds during autumn migration.

The Lyngbye sedge community also plays a role in marine food chains of the low marsh. Marine algae trapped in the stems and leaves of sedges form the food base for invertebrates that feed young fish rearing in the salt marsh. These include juvenile herring, stickleback, staghorn sculpin, starry flounder, and coho salmon, which often spend their first summer in the marsh estuaries before retreating into headwater streams to overwinter. All of these species are potential prey for fish-eating birds from terns to mergansers.

Below the low marsh sedge zone are several types of vegetative communities, depending on whether the substrate is finer muds or coarser sands and gravels, and depending on exposure to tidal currents. Here you see broad expanses of mud, sand, and gravel, broken by patches of plants or small "lawns" of alkali grass, goosetongue, sea milkwort, and arrowgrass. This area may look barren, but in fact it's extremely rich in food for specialized bird groups like shorebirds. Here you'll find three distinctive community types amid the open sand and mudflats.

We call the first type succulent marsh because it's rich in succulent vascular plants like goosetongue and arrowgrass. Favorite foods of geese, these low-growing plants are found on coarser substrates than the pure mudflats that foster Lyngbye sedge. Arrow-grass (*Triglochin maritima* - not a true grass) is low in fiber and high in nitrogen, most important to geese in spring and early summer.

All the communites described to this point are dominated by essentially "terrestrial" plants that have evolved varying degrees of tolerance to salt water. In contrast, the lower limits of the salt marsh



Succulent marsh covers large areas of the Wetlands below the sedge-dominated low marsh.

Photo by Richard Carstensen



The barnacle/ mussel/rockweed community at the mouth of the Mendenhall River is a hotspot of bird activity.

support two communities dominated by essentially marine organisms. Their residents — both plants and animals — live mainly in salt water, but to varying degrees they can tolerate being exposed to air.

The most diverse of these marine communities is patches of barnacles, mussels, and rockweed. These patches are found from zero tide level to about 12 feet above it. Barnacles, mussels, and rockweed cannot attach to pure mud, so they develop only where there is at least a partial mix of coarse gravel or cobbles--a substrate found at the mouths of Mendenhall River and several creeks on the Wetlands. In this "hotspot" of bird activity, larger birds like scoters and gulls forage on the mussels and barnacles, while smaller species like turnstones hunt for invertebrates that shelter under fronds of rockweed and in crevices between barnacles.

A second marine community is made up of bright green carpet-forming algae that in some places covers hundreds of square meters of sandy surface near the boundary between the low marsh and mudflats. The dominant genus in this felted mat is usually one of the yellow-green algae called *Vaucheria.* Other members of the community include diatoms, blue-green algae, and green algae. Because these plants lack roots or even the holdfasts of seaweeds like rockweed, this mat community is the most ephemeral of the Wetlands vegetative communities. Still, the mats appear to grow in roughly the same positions from year to year. They're frequented by Bonaparte's Gulls and Surfbirds, which flip aside the algae in search of invertebrates to eat.

In addition to the mat-forming algae, a bright green tube-shaped genus called *Enteromorpha* is common, especially on the deltas of small intertidal streams. This seaweed has high concentrations of mineral nutrients that are not available in other marsh plants, and is therefore important to Canada Geese.

This Red Knot is feeding in the algal carpet zone.



Ditch-grass is a salt-tolerant aquatic plant that grows in dredge ponds near the airport and in brackish ponds near Walmart. Ditch-grass is essentially restricted to ponds of human origin, but for waterfowl it has been called one of the most valuable species of submerged aquatics in the whole United States. Geese of all species, swans, and many dabbling ducks consume the entire plant, from narrow leaves to seeds to rootstock. It also supports crustaceans and dense schools of sticklebacks that attract predatory birds such as mergansers and herons.



Canada Goose eating ditch-grass



Important Foods for Waterfowl

Lyngbye sedge may be the most important plant for Canada Geese and other waterfowl on the Wetlands. Geese graze the green stems and eat the seeds and roots. In spring they seem to especially like to nip off the protein-rich new growth that starts under the horny tips that emerge in the fall.



If you walk into the sedge zone, you can sometimes see where geese have been eating the new shoots, leaving behind the discarded tips.



Also important to geese on the Wetlands are goosetongue . . .



. . . and arrow-grass.



More evidence that geese have been grazing: goose droppings and nibbled arrowgrass.

Fish



Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon and Dolly Varden—anadromous fish that spend all or part of their adult lives in salt water then return to fresh water to spawn—access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

The Wetlands also serve as a rearing, and in some cases spawning, area for other species of fish. Eulachon, capelin, Pacific herring, Pacific sand lance, Pacific staghorn sculpin, starry flounder, other flounders, and threespine stickleback are all found here. These are all fish that are eaten by birds.

Salmon

At least 31 species of birds in Southeast Alaska feed on adult salmon and/or their eggs and young. In addition to the direct benefits salmon provide to these birds, nutrients from carcasses of spawned-out salmon help sustain the productivity of stream and lake communities, often benefiting plants and invertebrates used by birds.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

Coho salmon occur in most streams that flow into the Wetlands. Juvenile coho may rear for some time in intertidal portions of Wetlands streams.

Many Birds Eat Fish



A number of fish species spawn, feed, and rear on Mendenhall Wetlands and areas adjacent to it. These fish attract a variety of fish-eating birds, including:

American Dippers • Bald Eagles • Belted Kingfishers
Arctic Terns • Bonaparte's Gulls • Mew Gulls • Herring Gulls
Glaucous-winged Gulls • Great Blue Herons • Red-breasted
Mergansers • Common Mergansers • Northwestern Crows
Common Ravens • Greater Yellowlegs



This Arctic Tern is feeding a juvenile coho salmon to its chick on Mendenhall Wetlands.



Spawned-out salmon carcasses often wash out into the Wetlands from streams and provide food for Bald Eagles.

Dolly Varden

Dolly Varden use most of the streams entering the Wetlands for spawning and for rearing of their young. In addition, Mendenhall Lake, 4.2 miles upriver from the Wetlands, is a major overwintering haven for Dolly Varden of the Juneau area. In spring, large numbers of Dolly Varden smolts, subadults, and adults leave the lake, migrating down the Mendenhall River and out to sea. During this migration we have observed Bonaparte's Gulls feeding on the smolt and subadult Dolly Varden near the northwestern end of the airport runway.

Dolly Varden feed on other fish within the Wetlands, and their feeding activity attracts birds that then feed on the Dolly Varden themselves. For example, when Dolly Varden gather off the mouth of Fish Creek to feed on Pacific sand lance, birds such as Arctic Terns and gulls also gather to feed on both Dolly Varden and their prey.



Bonaparte's Gulls often capture Dolly Varden in Gastineau Channel off the mouth of Fish Creek.

Eulachon

Eulachon have been documented within the lower reaches of Mendenhall River during spring. These little fish are unusually high in fat, and they attract numerous predators. At Berners Bay, 35 miles north of Juneau Airport, observers have counted a daily average of 40,000 gulls and 600 Bald Eagles feeding on eulachon in the lower reaches of the rivers. Some of these birds may be individuals found on Mendenhall Wetlands at other times.

Capelin

Capelin, like sand lance, eulachon, and herring, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. These dead and dying fish attract Bald Eagles and other birds that feed on them.

Pacific herring

We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.



We found this spawned-out capelin on Mendenhall Wetlands. In recent years, numbers of these little fish seem to be increasing on the Wetlands.

Pacific sand lance

Pacific sand lance are small, thin, silver-sided forage fish that grow six to eight inches long as adults. They typically form dense schools along tidal channels and also burrow in sand. They are extremely important in the diet of several species of birds.



Bald Eagles are attracted to the dead and dying capelin within a Wetlands slough.

At night or when they are not feeding, Pacific sand lance burrow into the sand to conserve energy and escape from predators. This sand lance is just emerging from sand on the Wetlands and is under about three inches of water.



On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides. We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.



Burrowing sand lance attract a flock of eagles and gulls on the Wetlands.

Pacific staghorn sculpin

Pacific staghorn sculpin are abundant in the Wetlands' shallow intertidal areas, and they are easy prey for Greater Yellowlegs, Great Blue Herons, Arctic Terns, Common Mergansers, and Belted Kingfishers. Juvenile staghorn sculpins are especially abundant within the Wetlands' intertidal channels, and we have sometimes caught up to 200 of them per seine haul.



Juvenile Pacific staghorn sculpins are common in the sloughs of Mendenhall Wetlands.



A male Belted Kingfisher holds a sculpin in preparation for feeding its young at a nest along Mendenhall River.

This river otter, photographed on the Wetlands, is eating a starry flounder.

Starry flounder

Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.



Great Blue Herons often capture juvenile flounders in sloughs on the Wetlands.



We often observe Greater Yellowlegs capturing threespine stickleback in Wetlands sloughs and ponds.



Threespine stickleback

Threespine stickleback provide a source of food for Arctic Terns, mergansers, diving ducks, and Great Blue Herons.

Two forms of threespine stickleback occur in southeastern Alaska—a marine form and a freshwater form. Both forms occur within Mendenhall Wetlands streams and sloughs. In a survey of Jordan Creek in 1970 we estimated 10,000 stickleback occurred in decreasing numbers from the mouth to the headwaters.

Feasting on Sand Lance



In 1987 we found a sand lance burrowing area on Mendenhall Wetlands. We saw some 85 Bald Eagles feeding on something in a sandy area not far from the mouth of the river. Through a spotting scope we were able to see that the eagles were walking around and rapidly moving their feet up and down, almost as if they were dancing. Hundreds of sand lance, apparently panicked by the activity, were popping up out of the sand and lying on the surface exhausted. The eagles were having a feast.



Several years later we saw Northwestern Crows digging sand lance in the same area. They generally captured sand lance in eight digs or fewer.

Invertebrates



A rockweed isopod, about an inch long, was photographed crawling about on a patch of rockweed at the mouth of Salmon Creek.

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

In addition, hordes of insects venture onto the Wetlands in search of algae to eat. These bugs in turn attract predatory insects that feed on them. The vegetated portions of the Wetlands also attract numerous insects looking for flower nectar.

We don't know a lot about the diversity, distribution, and density of invertebrates in Southeast Alaska wetlands. But in 2003 Mary Willson worked with Aaron Baldwin, then a graduate student at the University of Alaska School of Fisheries and Ocean Sciences, to sample the abundance and distribution of invertebrates in six widely separated areas of Mendenhall Wetlands. Amongst and under beds of mussels and rockweed, and buried in areas of mixed sand and mud, they found polychaete worms, isopods, snails, small clams, and amphipods—types of organisms that provide important food for ducks and shorebirds.

Bare sediments hosted the greatest diversity of invertebrates all year round, averaging several hundred per square meter. Small clams were the most numerous, except in winter, when marine worms predominated. Rockweed and mussel beds held fewer invertebrates than bare sediments. Snails were the most common invertebrates there, along with isopods and amphipods in some seasons.



Pseudoscorpions live beneath the rocks in the upper intertidal barnacle zone near freshwater streams.



Barnacles and Mussels

Barnacles and mussels are key players in the Wetlands ecosystem. Mussels are an important food for huge rafts of scoters that visit the mouth of Mendenhall River, and several species of shorebirds eat barnacles. Barnacles and mussels also provide shelter for other invertebrates that are important food for birds.

Northwestern Crows (above) drop mussels on the rocks below to break the shells. White-winged Scoters (right) swallow them whole and let their gizzards grind them up.





When barnacles (top right) are covered with water, the shell opens and pairs of appendages called "cirri" extend into the water above. Cirri make sweeping movements to strain fine food particles from the sea water.

When the tide goes out and barnacles are exposed, some birds such as this Surfbird eat them.



Amphipods

Amphipods can be amazingly abundant in certain areas of the Wetlands, especially under rockweed and among beds of mussels.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.



This Northwestern Crow is carrying a fairly large amphipod that it has captured.



Large numbers of amphipods can be found beneath clumps of rockweed, where gulls and crows forage on them.



Dowitchers probe into the mud with their long beaks, searching for tube-dwelling amphipods and other organisms.



The Sanderling above is feeding on a juvenile macoma clam.

Snails (far right) can be quite abundant on rocks and in mussel beds.

Clams

Juvenile *Macoma balthica* clams are sometimes found on the Wetlands in the thousands per square meter. They are important for mud-probing shorebirds. Adult macomas seldom grow larger than about half an inch in diameter. They live in muddy sand close to the surface, where they are also eaten by gulls and sea ducks.



Tiny juvenile macoma clams are important food for probers such as dowitchers.

Isopods

Isopods tend to live amongst the fucus and barnacle/mussel communities on the Wetlands. They are primarily nocturnal and are known to be eaten by intertidal fishes such as sculpins. Their role as food for birds is not as clear as that of amphipods because they often wedge themselves into inaccessible crevices.



This Oregon pillbug is the most abundant easily observed isopod around Juneau.

Snails

Small snails can be quite abundant on the Wetlands, especially wherever there are rocks and barnacles. Some species are known to be eaten by diving ducks such as Buffleheads, goldeneyes, scaup, scoters, and Harlequin Ducks. Snails also occur in the diets of some shorebirds.



Worms

Various marine worms can be important food for intertidal fish. They also appear in the diets of several species of shorebirds.



Marine worms such as this sand worm are often pulled out of the sediments by shorebirds.

Insects

Insects can be abundant along the edges of intertidal sloughs on the Wetlands. Some are algae-eaters and run about feeding on the surface of sand and mud. Others come onto the Wetlands to feed on the algae-eaters. As the tide advances, these insects seem to get momentarily trapped in the surface tension of the advancing water. Shorebirds take advantage of this, darting this way and that, feeding on them.

There are often large numbers of insects flying about on the Wetlands, too. Some are no doubt searching for mates, while others are looking for food. The fliers attract insect-eating birds, and you can usually observe various species of swallows hunting over open mudflats, sedge and uplift meadows. The mouth of Fish Creek is a good place to find Vaux's Swifts searching for flying insects, and various species of warblers can be found foraging among the alders that usually grow at the edges of the Wetlands.



Western Sandpipers probe the Wetlands for invertebrates.



Numerous flies forage on algae in the Wetlands.



Birds eat other invertebrates not mentioned here, such as the tunicate this gull has captured.



Insects are attracted to the abundant blossoms of cow parsnip growing at the margins of the Wetlands.



Checking for Contaminants on the Wetlands

Urban wetlands like the Mendenhall face severe challenges to their ability to remain healthy and support the wide variety of life within them. One example of how people are looking out for wetlands is a Tree Swallow study being conducted on and near Mendenhall Wetlands by Deborah Rudis, a U.S. Fish and Wildlife Service environmental contaminants biologist.

Nesting Tree Swallows typically feed on insects within a 400- to 500-meter radius of their nest. They eat mostly adult insects, which spend their larval stages rearing in nearby streams and ponds. If the insects have picked up contaminants from nearby water and soil, those substances could be traced in the swallows, their eggs, and their young. The birds and their success or failure at nesting could be early indicators of problems with pollutants.

In 2006 Rudis installed some 50 Tree Swallow nest boxes in five locations around Juneau—from ponds near the Juneau landfill to the banks of the Mendenhall River. The focus of her study is the area around the landfill and former incinerator site, which is immediately adjacent to Mendenhall Wetlands.



After three years, swallows had successfully nested and laid eggs in 25 of the boxes. Rudis is monitoring the birds, checking the health of adults, banding chicks, and collecting any eggs that do not hatch. The collected eggs were frozen to be analyzed for contaminants at some later time.



Mammals

A VARIETY OF MAMMALS HAVE BEEN SEEN on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels.

The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels.

Long-tailed voles (*Microtus longicaudus*) are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems.

These small rodents are considered "irruptive;" that is, every five to 10 years their population reaches very high densities on the upper perimeter of the Wetlands. Then, shortly after, the population drops to more normal levels.

Long-tailed voles are excellent swimmers, so the tidal sloughs do not necessarily restrict their movements; but during higher tides, they are often forced to swim. At those times we have observed Bald Eagles, Short-eared Owls, and gulls taking advantage of the voles' vulnerability.



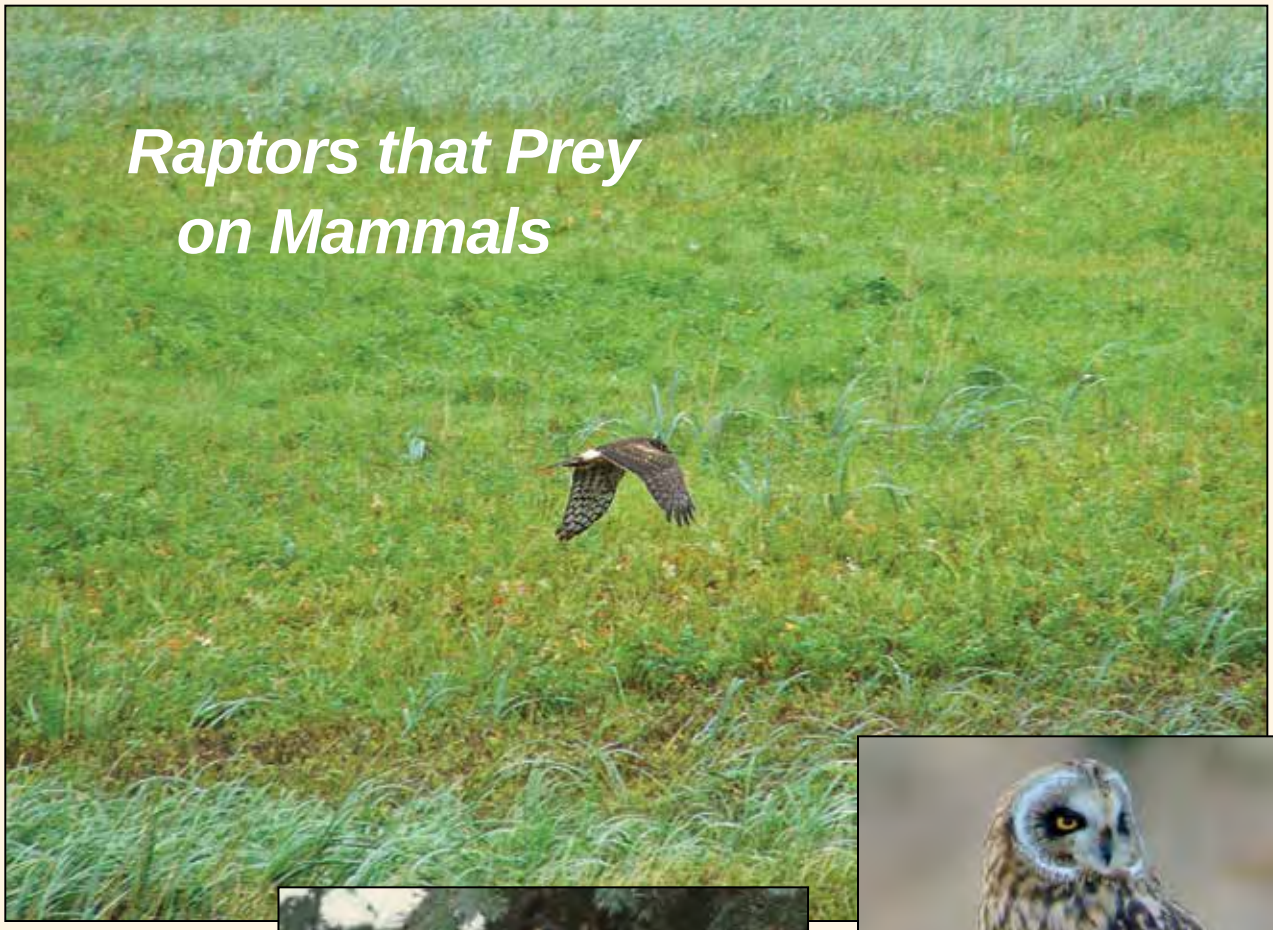
River otters (above) frequent Miller/ Honsinger Pond, especially in winter. They may be attracted to the staghorn sculpins and starry flounders living in the pond.



Rodents such as this red-backed vole (left) and the Keen's deer mouse (below) are eaten by a variety of predatory birds and mammals.

Other small mammals such as red-backed voles, deer mice, and shrews live in the upland meadows, especially where the meadows meet the forest. On the Dike Trail we once saw a Northern Pygmy-Owl snatch a shrew and eat it while we watched from only a few feet away.

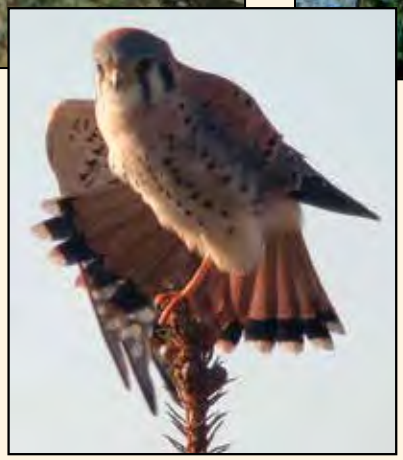
Raptors that Prey on Mammals



Most raptors, such as the Northern Harrier (above) hunt for small rodents and birds in the grassy high marsh and uplift meadows. Others, such as the Great Horned Owl, near right, hunt mostly at night.







American Kestrels (right) often sit on high perches around the Wetlands. They are probably on the lookout for small rodents and birds.

(Above) a Short-eared Owl on the Wetlands. After examining hundreds of Short-eared Owl pellets collected over many years, we have concluded that long-tailed voles are the owls' major, and sometimes only, prey on the Wetlands.



Mink (left) and short-tailed weasels (below left) prey on voles and mice. Weasels feed mostly on rodents.







Beavers are common in the upper Mendenhall Valley. Some disperse through sub-optimal habitat on the Wetlands.

We often see Sitka black-tailed deer foraging in the meadows around Wigeon Ponds.

Harbor Seal Rescue





One year a newborn harbor seal was found on the Wetlands. After a few days, when it appeared that the pup's mother was not caring for it, help was called in.

Marine mammal rescue coordinator for the National Marine Fisheries Service, Aleria Jensen (on the right) and Rachel Dziuba, a veterinarian, examined the pup and concluded that it would not survive without help.



The pup (later named Garnet) was shipped to the Sealife Center in Seward for rehabilitation.



Garnet was returned four months later and released in Fritz Cove. Fitted with a radio transmitter, he was tracked venturing up the Taku River, and eventually spending most of his time near Glacier Bay.

Ecological Interactions



Mendenhall Wetlands is the meeting place of marine, freshwater, and terrestrial ecosystems. It is one of the richest areas in Southeast Alaska, in terms of the variety and productivity of the organisms that use it. Some of this richness originates in the three major ecosystems and is brought to the Wetlands by flowing water and other means. Some of it originates in the Wetlands themselves. The Wetlands in turn, provides sustenance to each of the interacting ecosystems, perhaps to an even greater extent than it receives from them.

Input to the Wetlands

Numerous freshwater streams flow from the slopes of the coastal mountains and over the Wetland tideflats to salt water. They bring fresh supplies of sediment, which builds up the flats and increases their fertility. Zones of differing vegetation are inhabited by plants with differing tolerances for exposure to salt water. The resulting diversity of vegetation provides habitats ranging from nearly bare mud in the lower zones to salt marsh with rooted vegetation in the upper zones.

Fresh water flowing over the flats supports several kinds of freshwater animals that can withstand being inundated by the tides. The streams also carry nutrients from decomposing leaves, dead fish, and leached soils out over the flats and into their estuaries.

Thus, streams make a link between terrestrial and marine systems. The estuaries enriched by this input are home to numerous kinds of crabs, snails, and fish. More direct input from terrestrial systems comes as wind-blown leaves and seeds and the excretions of animals that fed in forests and meadows.

Sockeye salmon travel through Mendenhall Wetlands when they migrate from the open ocean and return to spawn in Steep Creek near Mendenhall Lake. The spawning fish are important food for animals such as this small black bear. Young salmon of the next generation will migrate back through the Wetlands to the sea, feeding and/or resting in some part of the Wetlands.



Great Blue Herons often feed on Dolly Varden in Steep Creek near Mendenhall Lake. This fish would have migrated through Mendenhall Wetlands and may have spent time feeding there.

The sea provides the greatest input to the area. Tides wash the flats twice a day, their reach varying day to day and with the season. They wash nutrients and micro-organisms across the flats and refresh the water in channels and sloughs. This input provides food for organisms that live on the tide flats and associated sloughs: small clams, worms of various types, amphipods and isopods, mussels and barnacles, algae, sedges and other rooted plants. These animals and plants in turn feed other creatures that visit the area daily or seasonally. Per-acre productivity of these wetlands far exceeds that of any place on Alaskan uplands.

The sea is also a source of fish that live much of their lives in salt water but use the intertidal area for part of their lives. Sand lance sometimes, especially in spring, bury themselves in loose sands near the northwest end of Gastineau Channel. Eulachon occasionally spawn in spring in the lower reaches of the Mendenhall River. Juvenile flatfish, such as starry flounder, and sculpins rear in the sloughs and tributary streams. Salmon and Dolly Varden come in to spawn in several of the tributary streams, and their juveniles eventually pass through the Wetlands on their way to salt water.

The Wetlands as a feeding area

Invertebrates, fish, and plants on the Wetlands feed migratory and resident birds, otters and mink, and sometimes each other. Here are some examples:

Gulls gather on streams when mature salmon come in to spawn, and they use the salmon in different ways, depending on their body size. The small Bonaparte's Gulls typically forage for loose salmon eggs, either by hovering over the stream and then diving in, or by paddling on the surface and dipping down to grab eggs one by one. Middle-sized Mew Gulls forage on eggs and, more than the other gulls, on invertebrates in nearby algal mats; they avoid fish carcasses if the larger gulls are present. The large Herring and Glaucous-winged Gulls wade in search of eggs and salmon, dead or alive, but immature large gulls concentrate more on



Mendenhall Wetlands are a crucial resting area for thousands of birds during their long migration from southerly wintering areas to nesting sites farther north in Alaska. The resting birds in this photo are Snow Geese.

eggs than adults of the same species do. Large gulls, especially Glaucous-winged Gulls, sometimes pull live salmon to the stream edge, poking at the eyes and also at the vent area to force egg extrusion.

Buried sand lance attract predatory gulls, Bald Eagles, Common Ravens, and Northwestern Crows, which poke in the sand to extract these buried prey. The predators concentrate their activity in areas with high densities of sand lance. Eagles capture sand lance in two ways: by wading in the shallows and grabbing a fish with bill or feet, and by repeatedly patting the sands with their feet, causing the fish to emerge where they can be easily captured. Crows and ravens dig in the sand with sideways motions of the bill, sometimes making several digs before capturing a fish. Glaucous-winged Gulls are less successful at digging their own fish and probably get most of their sand lance by stealing them from other birds.

A common invertebrate in many parts of the tideflats is a small pink clam called *Macoma balthica*. It lies buried in the sediments with just its siphon reaching to the surface, where it gathers small particles on the surface or suspended in the water. Small flatfish of several species graze on *Macoma* siphons, nibbling off the upper end. This forces the clam to move closer to the surface, where it becomes more accessible to foraging shorebirds. Siphons can be regenerated, more quickly in well-nourished clams than in hungry ones.

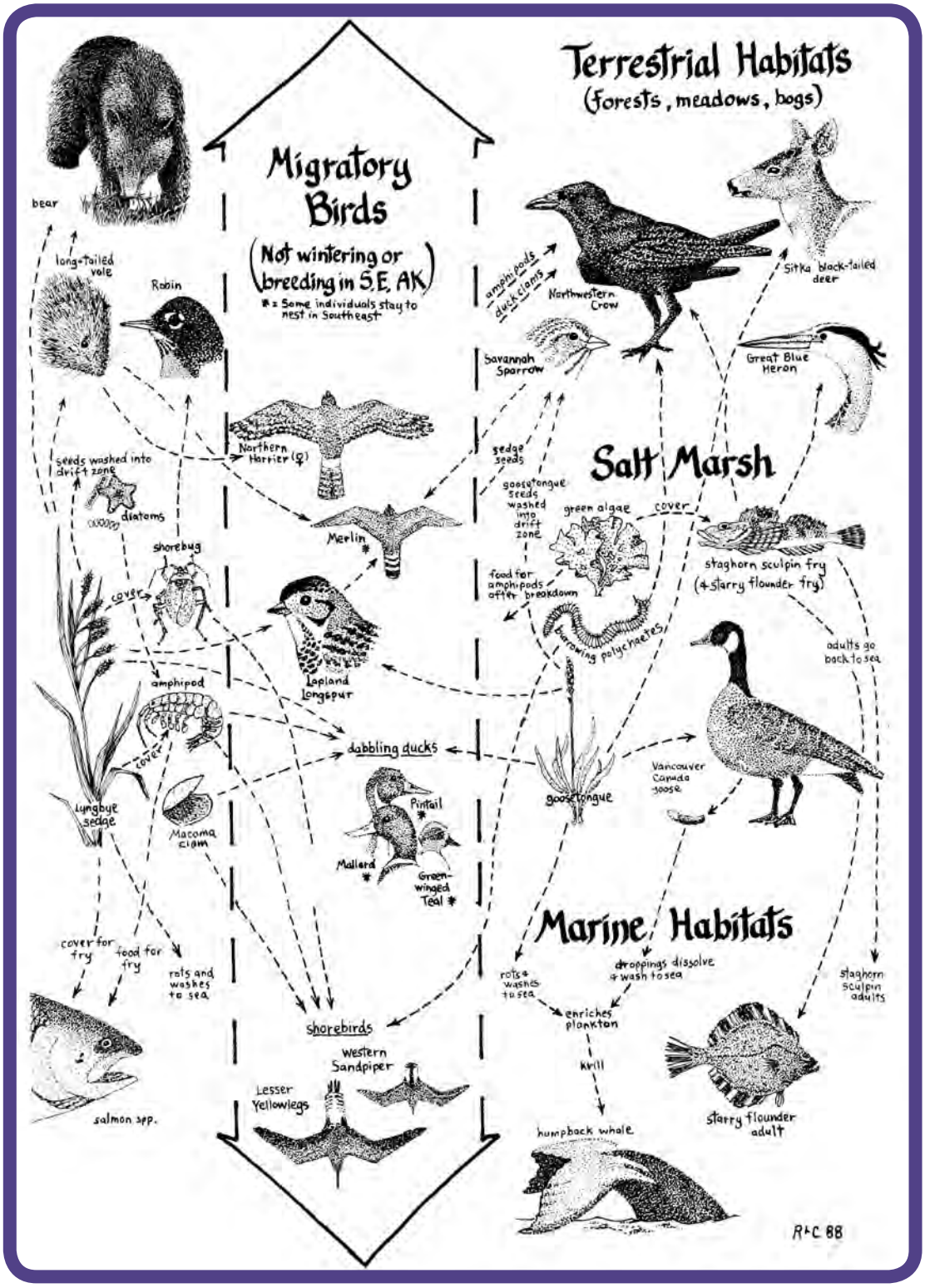
Many kinds of shorebirds use the Wetlands, and they range from tiny Least Sandpipers to large godwits and Whimbrels. Each species has a characteristic style of foraging that depends partly on the length of the bill. Long-billed species can probe more deeply into mud or water than short-billed ones, so each species has access to different kinds and quantities of invertebrate prey.

Bald Eagles nest in the trees surrounding the tideflats and on the spoil islands (formed by dredging) near Gastineau Channel. They prey on gulls, ducks, and fish. Eagles (and gulls) also gather by the dozen along the river when eulachon are running.

In winter, when the upper parts of streams are frozen, American Dippers look for food in intertidal areas of the Wetlands. At this time, most of the food they find is small amphipods. This dipper was feeding in the intertidal portion of Fish Creek.



Mendenhall Wetlands provides food for a remarkable variety of birds, mammals, fish, and invertebrates. Its value as a "provider of nutrients" extends well beyond its boundaries to nearby terrestrial and marine habitats.



Small fish abound in and near the Wetlands; there are sand lance, flatfish, sculpin, sticklebacks, juvenile salmonids, and occasionally capelin. Small fish are prey for many species, including the eagles just mentioned. Flocks of mergansers sometimes gather near the Wetlands; their serrated bills are adapted for catching fish. Yellowlegs and Arctic Terns regularly capture small fish as well. Great Blue Herons stalk the shallows, usually looking for small fish but occasionally taking fish more than

a foot long. In addition, harbor seals cruise along the shores and sometimes follow the in-migrating salmon upstream.

Geese forage extensively on the underground parts of sedges in the saltmarsh, grubbing shallow depressions in the sediment. They also clip the tops of sedges and arrowgrass. Their scat is deposited on the flats, returning some of the nutrients to the system.

During migration season in spring and fall, songbirds and shorebirds are sometimes abundant on the Wetlands. They typically consume invertebrates and sometimes seeds, but in turn they are prey to migratory raptors, such as Merlins, Northern Harriers, and Short-eared Owls.

Seeds from salt marsh plants often form windrows of seeds at the high tide line that attract seed-eating birds such as Common Redpolls and Snow Buntings.

Nutrient transfer to terrestrial areas

Some of the foragers on the Wetlands carry prey, digested or otherwise, to shore, thereby carrying nutrients from marine sources to the terrestrial ecosystem. Ravens and crows carry small fish to their nests or



Several hundred Herring and Glaucous-winged gulls nest in a colony in front of Mendenhall Glacier. This Herring Gull most likely flew down the valley to forage on Mendenhall Wetlands and obtain food for its chick.



Humpback whales bubblenet feeding in Juneau's marine waters may be eating sand lance, capelin, or herring that reared on Mendenhall Wetlands.

store them in trees or under clumps of vegetation for future consumption

Eagles carry fish and ducks to their nests. Terns carry small fish to their mates and chicks as far away as the shores of Mendenhall Lake. Bears visit salmon runs and haul their prey ashore, often leaving a good part of the carcass. Digested prey from all these and other predators is often deposited on land also, bringing additional nutrients to the terrestrial system. Research has shown that marine-derived nutrients from salmon are picked up by streamside vegetation and that the density of songbirds near salmon streams is greater than near streams that have no spawning salmon.

The Wetlands as a resting area

But the value of the Wetlands is not only about food and nutrients. The area provides important resting places, especially for migrants and overwintering waterfowl. Predators of such birds often lurk in trees or use trees as cover. They fly low over the flats with dark trees in the background, making it difficult for foraging birds to detect them. Prey species often prefer to rest in open areas, well away from trees, where they have better chances of detecting an approaching predator. Shorebirds vulnerable to predators are flightier in dim light than in bright light, so in low light conditions (not uncommon in Southeast Alaska) they may lose foraging time.

Fear has a great impact on waterfowl behavior and distribution on the Wetlands, particularly during and just after hunting season. Ducks and geese are more easily disturbed from resting or foraging at that time, and some of them leave the Wetlands and fly to the relative safety of Auke Lake, sacrificing the good forage of the Wetlands for less threatening surroundings. To our knowledge, the effects of fear and disturbance on the body condition of waterfowl have not been studied. We do know, however, that body condition greatly influences birds' ability to breed and the number of eggs laid.

Ecological interactions on the Wetlands are many and complex, and most of them have never been studied. There is a wealth of fascinating research projects out there for curious naturalists to pursue.

Threats to Birds and Their Habitats on Mendenhall Wetlands

Mendenhall Wetlands may be one of the most threatened Important Bird Areas in Alaska. It is surrounded by extensive urban development and has an international airport at its center. Also directly adjacent to the Wetlands are one of Juneau's primary sewage treatment plants, and the city and borough landfill and former incinerator site. A number of future plans and actions could also diminish the Wetlands' value for birds. Projects proposed or in various stages of planning include expanding the airport terminal and runways, a second bridge crossing Gastineau Channel, and efforts by adjacent land owners to claim land accreted as a result of glacial rebound.

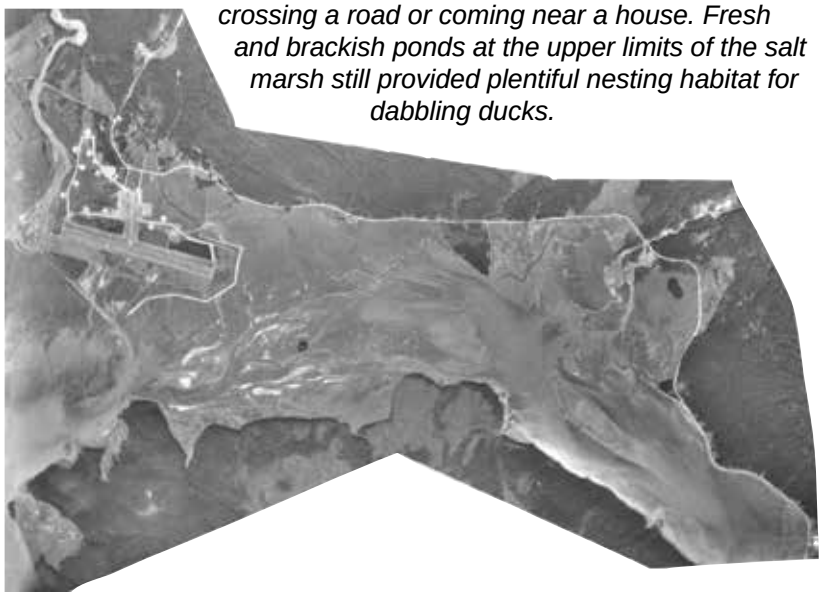
As a pocket of scenic and natural beauty within a large urban community, the Wetlands are frequented by numerous recreational users, some of whose activities can disrupt birds and alter their habitat. These include dog walkers, mountain bikers, fishermen, boaters, kayaking tour groups, bird watchers, horseback riders, and waterfowl hunters in fall.

Past Development

Much of Mendenhall Wetlands has already been lost to development. Areas of upland marsh, a transition zone between intertidal areas and the forest, are gone—a loss of habitat that once supported nesting waterfowl and a variety of other birds. These areas are now populated by the airport terminal, runways, and associated buildings; commercial and industrial businesses and activities along Industrial Boulevard; Fred Meyer and WalMart superstores; the Juneau Christian School; the four-lane Egan Expressway; and other encroachments. Much of this development required portions of the Wetlands to be filled, which directly destroyed feeding and resting habitat for birds.

Mendenhall Wetlands, 1948

The newly built airport and surrounding dike system severely impaired the estuaries of Duck and Jordan Creeks, but tides still flowed freely through the Wetlands. The extensive sedge flats of the Lemon/Switzer/Vanderbilt estuary were still an integral component of Gastineau Channel's fish and wildlife habitat. Deer and bear could access the entire Douglas Island coastline without crossing a road or coming near a house. Fresh and brackish ponds at the upper limits of the salt marsh still provided plentiful nesting habitat for dabbling ducks.





Mendenhall Wetlands, 2001

The most significant impacts to the Wetlands since 1948 have been the construction of Egan Drive, re-routing and channelizing streams, dredging of Gastineau Channel and the deposition of spoil islands, eastward extension of the airport runway, and dredging of ponds for fill material. Much of that fill later became road beds and building pads that further encroached on the Wetlands.

By 2001 the land had risen 2.3 feet since 1948. This uplift, combined with human impediments to tidal flow, fostered the rapid advance of vegetation into former mudflats.



The airport's floatplane basin is currently being dredged to remove ditch-grass, a food much sought after by Canada Geese and other waterfowl. This is one of several modifications planned to reduce the area's attractiveness to birds, which are considered a safety hazard.

Future Development

The proposed expansion of Juneau International Airport will require filling a portion of the Wetlands, destroying yet more feeding and resting habitat for birds. Removal of ditch-grass is one of several modifications planned on airport property to reduce its attractiveness to birds, which are considered a safety hazard.

Substantial planning has been completed for a bridge to cross Gastineau Channel and connect mainland Juneau with Douglas Island. The recommended crossing site is at the Vanderbilt and Egan Expressway intersection and would go from there across the Wetlands. This crossing would require filling and loss of more bird habitat on the Wetlands, and might also be disruptive to the movement of birds.

Also proposed is construction of a coastal bicycle trail adjacent to a portion of Egan Expressway and the Wetlands. Much of the trail would run through an area where humans seldom go and birds now forage undisturbed. Construction of the trail would allow birds to be disturbed in favor of expanding human recreational use.

Pollution

The Juneau landfill drains directly into the Wetlands in the vicinity of Lemon Creek. Pollution from this source could be dispersed to other parts of the Wetlands by Lemon Creek, Vanderbilt Creek, and Switzer Creek. The Tree Swallow study described elsewhere in this book is attempting to assess the presence and effects of contaminants. Raising further questions, we have noted in our surveys that birds use the area at the mouth of Lemon Creek less than they use other areas on the Wetlands. We found fewer invertebrates there as well. Potential effects of pollution from the landfill, however, have not been evaluated.

One of Juneau's primary sewage treatment plants is located adjacent to the Mendenhall River and the Wetlands near the Juneau airport. On occasion this plant has failed and discharged pollutants directly into the Mendenhall River. In addition, it has discharged chlorinated hydrocarbons directly into the Mendenhall River. The effect that these actions have on the Wetland birds or their food has not been studied.

There are two other possible sources of pollution. During winter, de-icing of

airplanes and runways at the airport releases chemicals that eventually leach into the Wetlands. The effect this may have on birds in the area has not been studied. Secondly, the DIPAC hatchery sometimes grinds up large numbers of salmon carcasses and deposits millions of pounds of ground salmon slurry into the middle of Gastineau Channel near the Wetlands. The effect this may have on invertebrates, fish, or birds is not known.





(above) The marsh near the Juneau Pioneers' Home is used by Mallards and other ducks as a sanctuary during hunting season.

(left) Uncontrolled dogs are one threat to birds that could be avoided. These two dogs flushed and chased a group of Snow Geese that were feeding on the Wetlands.

The Wetlands are bordered at either end by boat harbors and cruise ship docks. Some wastes and poisons such as anti-fouling paint, oil, sewage, and cleaning materials inevitably get into the water and are distributed across the Wetlands.

Other Disturbances

Many of the multiple uses of Mendenhall Wetlands displace birds. Low-flying helicopters, unleashed dogs, runners, cyclists, boaters, fishermen, hunters, photographers, and even bird watchers can disturb birds and cause them to flush. Two major heliports run numerous daily flights for tourists during the season. Power boaters use Gastineau Channel to travel between downtown Juneau harbors and northern Stephens Passage. Guided kayak tours from the North Douglas boat launch take tourists into portions of the Wetlands where birds concentrate. Most of these activities are unavoidable and are considered normal and allowed uses of the area.

Some activities that disturb birds may be avoidable, however. Over the years we have documented numerous instances where unleashed dogs chase birds. On occasion we have observed dogs from adjacent landowners running loose and unattended, chasing birds on the Wetlands for hours at a time. There is a Juneau Borough leash law along the Dike Trail, and state and federal laws governing harassment of wildlife on and near the refuge, but these laws are seldom enforced.

Waterfowl hunting on the Wetlands displaces Canada Geese and ducks. As noted elsewhere in this book, local populations of Vancouver Canada Goose and resident Mallards have learned to cope with hunting by flying to Auke Lake before hunting begins each day and returning to the Wetlands to feed at night. The effect this has on the birds' overall condition is not known. Most wildlife refuges we are familiar with in the Lower 48 States have fairly large zones closed to hunting, where birds can forage undisturbed. The only sanctuary on the Wetlands, however, is the small marsh near the Pioneers' Home. This is used by some Mallards but not by geese.



Photo by Bruce Baker

Some landowners have received quiet title from the State of Alaska to accreted wetlands. The owners of this home have since granted a conservation easement to the Southeast Alaska Land Trust. Terms of the easement require that the accreted land be managed in a manner similar to the way the state manages land in the Mendenhall Wetlands State Game Refuge.

In an effort to decrease the possibility of birds striking aircraft, wildlife control personnel at Juneau International Airport frequently harass and sometimes shoot birds on airport property. Similar control efforts also take place at the Juneau landfill because it is located under and near the flight paths of some jets.

Loss of Accreted Lands

As land in the Mendenhall Wetland area rises due to "post-glacial rebound," upland land owners have the right to seek title to accreted land adjacent to their property. Because of the very low gradient of the Wetlands, this accreted land sometimes totals several acres. Once owners obtain title to accreted land, they have the right to certain types of development, which can displace birds or alter their habitat. Southeast Alaska Land Trust has been working with land owners surrounding the Wetlands in hopes of acquiring the accreted land and making it part of the Mendenhall Wetlands Game Refuge. SEALTrust also encourages owners to consider attaching conservation easements to protect the newly exposed lands in support of birds.

Looking to the Future

The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study.

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Birds come to Mendenhall Wetlands from many places



Bald Eagle
(resident)



Rock Sandpiper
(breeds in western and northern Alaska)



Trumpeter Swan
(winters in Lower 48)



Lesser Black-backed Gull
(vagrant from Asia)



Pectoral Sandpiper
(winters in South America)



Arctic Tern
(winters in Antarctica)

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Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department of Natural Resources (Office of Habitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off-Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending on the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment…" and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden – Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden (*Salvelinus malma*) in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery – Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance – On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus*, in Southeaster Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R. H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R. H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn—access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (O. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and K V. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL;
http://www.ecologyandsociety.org/vol14/ iss1/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Shortbilled Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose (*Branta canadensis fulva*), which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards**. They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle**--In 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird—too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Hodges, J. I., and B. Conant 1986. Experimental Vancouver Canada Goose Survey – Northern Portion of Southeast Alaska. Waterfowl Investigations, U.S. Fish and Wildlife Service, Juneau, Alaska. 9 pp.

King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

Watson, S. 1979. Avian habitats and use of the Mendenhall Wetlands Wildlife Refuge, 30 April-30 June 1979. ADF&G unpublished report, Juneau, AK 28 pp.

Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles (*Microtus longicaudus*) are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
JUNEAU AREA OFFICE

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22 December, 2003

Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Lukshin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview

The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review of DNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion (*366-045-84* and *366-122-84*, 11/8/85), addresses in detail the land management authorities of DNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals (*Refuge Mgmt Plan 5 AAC 95.520*): "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--
*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700—760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not taking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.10) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. "

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations
Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria
Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment
Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information
We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle
Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
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Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

Talli Vittetoe

From: Talli Vittetoe
Sent: Thursday, March 16, 2023 3:50 PM
To: C Pohl; PUB-JDNorthCrossing
Subject: RE: [EXT] wildlife information for North Crossing PEL study

Good afternoon Ms. Pohl,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study.

Talli Vittetoe
Public Involvement Assistant

DOWL

[redacted]

dowl.com

From: C Pohl [redacted]>
Sent: Wednesday, March 15, 2023 6:49 PM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] wildlife information for North Crossing PEL study

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear PEL Team leadership,
I have attached a letter with reference links to help you patch up deficiencies in the wildlife and habitat information you have presented in your Wildlife Technical Memo and Settings documents. It is my view, as a wildlife/habitat biologist with regulatory experience, that you have not presented enough information to credibly address in even the most approximate way the magnitude of the resource or the relative effects of crossing alternatives.

Catherine Pohl
[redacted]

Dear North Crossing PEL Team:

Bird and habitat information and mapping are sorely lacking in the PEL Wildlife Technical Memo and Settings Document. Basic information is readily available and must be included for even the roughest evaluation of the magnitude of the resource and relative effects of project alternatives. I see that you have included some eBird observations, but you've not included enough associated information for them to be useful. I see nothing on the resident Vancouver Canada geese or the waterfowl, shorebird, raptor and passerine species for which the refuge is an important migratory stopover.

Here are several key references you will need to patch up your wildlife/habitat information on the project area---

The Mendenhall Wetlands State Game Refuge was featured in the following national USFWS storymap in 2021. This might be a good place for you to start for an historical overview and introduction: https://storymaps.arcgis.com/stories/662519e4406946faa6e655dd0329f2a7

SEALTrust contracted the following 2004 report that includes vegetation mapping of the refuge and was recently reformatted for better map viewing. This work could easily be updated to help make the PEL alternatives selection process more useful to the NEPA process. While these two references focus on uplift, they also contain good overall information and maps on habitats and their use:

https://juneaunature.discoverysoutheast.org/wp-content/uploads/2018/04/accretion2004-23.pdf

In 2002, the Juneau Office of USFWS contracted local naturalists and biologists for an updated survey of bird use "hotspots" on the Mendenhall Wetlands. This work compiled extensive previous observations as well as new surveys at targeted areas throughout the refuge done in 2002 and 2003 and published in 2004. (It also includes observations from Cain, S.L., J.I. Hodges, E. Robinson-Wilson. 1988. Bird use of the Mendenhall Wetlands in Juneau, Alaska. USFWS.)

https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf

The following book presents highlights of the above survey and its Important Bird Area designation:

https://juneaunature.discoverysoutheast.org/wp-content/uploads/2018/10/armstrong_mendIBA.pdf

The Mendenhall Wetlands State Game Refuge Management Plan summarizes early bird survey information. It contains a habitat map and map of access points. You reference this document in your regulatory sections but not in your Tech Memo or Settings report. Downloads are available on the following site: https://www.adfg.alaska.gov/index.cfm?adfg=mendenhallwetlands.managementplan

The P &N also needs clarification. The purpose is stated as the PEL study's purpose, which is not correct. "Additional goals" appear optional and make it hard to prioritize needs. For this project, and for a PEL, the "environment" goals should be moved up to be clearly part of the need. (And the non-motorized bit has not been seriously addressed with alternatives.) The Mendenhall wetland area lies at the heart of Juneau and its identify and remains the key to the crossing project if given the attention it requires

Sincerely,

Catherine Pohl [redacted]

Mendenhall Wetlands Study Group

Comments on Draft Level 1 Screening Results

March 17, 2023

This is in response to the Draft Level 1 PEL Screening Results presented in the Technical Memoranda of March 6, 2023 during the meeting of the Technical Committee regarding the 2nd Crossing. Our comments related to the Level 1 Screening results are presented below. Please refer to our January 30, 2023 document submitted to the DOWL group concerning the 2nd Crossing of Gastineau Channel.

First, we must point out that the PEL team does not appear ready to complete Level 1 screening. By PEL guidelines, and your described process, key environmental values must be considered, even at this early phase. That is why PEL was created—to efficiently shape a project in light of environmental and regulatory factors early in project development. Unfortunately, the PEL team has not yet gathered or presented useful information on wildlife, habitat, and human use of the Refuge. While more detailed information will likely be needed for additional adjustments and full documentation of Level 2 screening, the agencies and the public should have at hand at least the available information documenting the magnitude and importance of refuge resources, key habitats, uses, access points, and locations BEFORE alternatives are screened for further consideration.

Salmon Creek as the Preferred Alternative

The Salmon Creek crossing stands out as the best alternative to meet the Purpose and Needs identified for the PEL study. The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Salmon Creek crossing is at the intersection to the hospital, thus providing the best alternative for reduced transport/response time and access in case the existing bridge is compromised, or traffic is disrupted or blocked between the hospital and the bridge intersection.

The screening document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. Salmon Creek achieves this objective as well or better than the other alternatives proposed for Level 2 analysis.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan specifies that the use for a public transportation corridor is allowed only if "there is significant public need for the corridor which cannot be reasonably met off-refuge." The Salmon Creek crossing could be designed to avoid the refuge as well as the migratory bird concentration at, and north of, the stream mouth. (see "Hotspots" report, https://juneaunature.discoverysoutheast.org/wp-content/uploads/2018/04/accretion2004-23.pdf). This location best meets the priority Purpose and Needs and is the preferred alternative to avoid the legal conflict with the State law establishing the refuge.

Further, Salmon Creek may also be the preferred alternative under Section 4(f) of the U.S Department of Transportation Act. The act requires that FHWA determine that (1) the impacts of an alternative on 4(f) lands (in this case the MWSG Refuge) are de minimis, or (2) undertake a Section 4(f) Evaluation. If the 4(f) Evaluation identifies a feasible and prudent alternative that completely avoids Section 4(f) properties, it must be selected. We think Salmon Creek meets the purpose and need for the project, and if it is determined to be feasible and prudent to build, it will cause either de minimis impact on the Refuge or avoid it completely.

The draft Level 1 screening document appears to largely ignore the planning and regulatory issues outlined in the preceding two paragraphs. Table 3 (page 6) of the screening document shows that all of the alternatives rated are "consistent with plans, policies, and development code." None of the alternatives within the Refuge are consistent with the Refuge's management plan or with Section 4(f). They therefore should be marked (N).

The DOWL presentation did raise concerns on the feasibility of the Salmon Creek crossing due to the height and distance requirements to land it at the hospital intersection. The MWSG encourages that the Level 2 analysis for this alternative include consideration of connection points from the southeast end of Channel Drive to the southern edge of the exposed Salmon Creek delta to ensure that due diligence is given to the feasibilty of the crossing and to avoidance of the referenced migratory bird hotspot.

Eagle Creek

Our Study Group also favors keeping the Eagle Creek alternative for continued analysis. The risk of avalanche hazard should be evaluated to determine if this is a reasonable alternative. The Eagle Creek crossing site does meet the primary Purpose and Needs, and is also completely outside of the Refuge and further from the bird concentration area at the mouth of Salmon Creek, thus minimizing environmental impact and avoiding legal challenge for permitting a transportation corridor in the refuge. Analysis of this crossing option should consider moving the mainland landing site further northwest to reduce exposure to the avalanche zone.

Ranking

We believe that the impacts of the crossings within the Refuge, if included, need to be ranked in the Level 2 analysis. Currently, rankings between the cross-Refuge options are totally absent. From the standpoint of impacts to Refuge resources and users, the experts within our Study Group agree that the Sunny Point crossings have by far the greatest impact because they traverse the heart of the Refuge. Elevated routes at Vanderbilt and Twin Lakes, although crossing the Refuge, create fewer impacts to wetlands and human use. Shorebird and waterfowl uses in these areas are significant, however. The screening analysis should evaluate resource values and rank the different cross-refuge alternatives to estimate their relative impacts.

We were encouraged to hear the DOWL team tell the Stakeholder and Technical Advisory Groups that if any of these three cross-Refuge options are included in the Phase 2 analysis only elevated structures will be considered. All three of these crossing options run perpendicular to the tidal flow that creates the highly diverse and productive wetlands in the Refuge. A solid fill structure at any of these locations would have substantial impacts on tidal flows and thus a large area of the Refuge. Project proposals for solid fill causeways would face legal challenges and are unlikely to be permitted and therefore should not be included in the Level 2 analyses.

Resource Analysis

As part of the Level 2 screening the PEL Team should develop comprehensive and geographically specific information on both habitats and fish and wildlife use of the various parts of the Refuge, particularly areas affected by potential cross-refuge structures.

While wetlands are important to wildlife and have their own regulatory protections, your ranking must also consider the full range of wildlife use of project area habitats, given that mudflats and resting areas are also extremely important. Such areas must be identified for Level 2 screening for both the on- and off-refuge alternatives. See the SEALTrust 2004 habitat maps that could be updated to roughly identify key habitats such as low marsh vs high marsh, mudflats, mussel beds, open water and algal mats (https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf).

While existing bird observation data such as the "Hotspots" report noted above, as well as eBird, are focused on accessible refuge margins, they should be consulted to see where seasonal bird concentrations have been documented and where additional data are needed. Experienced observers, photographers, and hunters, including this group, can help to fill some of the information gaps early in this process, although additional information will be needed to support full consideration of crossing sites.

As mentioned above, all three of the areas considered for cross-Refuge structures should have further analysis. However, the Sunny Point crossing alternatives are of particular concern. These crossings impact the largest acreage of wetlands in a highly diverse and productive area of the Refuge. They will likely alter the hydrologic regime of the wetlands and negatively impact, not only Refuge lands, but also the wetlands protected by the SEAL Trust at Sunny Point as mitigation for the wetland impacts of the recent Airport expansion. The Sunny Point area is also at the top of the public use areas on the Refuge, especially for waterfowl hunting.

Public Uses Analysis

In the technical memoranda that explain the results of the draft Level 1 screening process the subject of public uses of the Mendenhall Wetlands and more specifically the MWSGR is almost completely omitted from consideration. Birding, dog-walking, photography, and other outdoor pastimes and the way that alternatives could impact them are not mentioned; the lone exception is the disclosure that the Sunny Point (east) alternative would encroach on a popular and long-standing waterfowl hunting area. However, even in that case there is no estimate of the effects of that encroachment, and it is quite likely that state or borough shotgun discharge setbacks from any of the mid-refuge crossings would severely constrain or shut down hunting in the refuge. State refuges are public use areas as well as environmental conservation areas and screening potential alternatives without consideration of the effects upon those uses ignores real differences between them. In general, the effects of a crossing will have much less impact on public uses at the eastern/southern end of the study area in more developed areas; if there was an "Effects on public uses" matrix line Salmon Creek would have a better rating than the cross-Refuge routes.

Bench Road

It is premature to choose a second Mainland-Douglas Island route before a planning effort for the northern and western portions of the island is completed, and illogical to pump additional traffic onto the North Douglas Highway, which ADOT has said is incapable of safely handling increased levels of use. The North Crossing PEL process has simultaneously and explicitly excluded a North Douglas Bench Road from the project description and yet shown it on project maps because it is a critical factor in making the project work. Land use planning for future development on the island and provision of a bench road or some other approach to avoiding impacts to the North Douglas Highway should precede, not follow, implementation of a second crossing. To that end, wetland mapping for this area should include the CBJ 2014-15 wetland boundaries that are more accurate than the NWI maps, particularly for forested wetlands.

Mitigation

Finally, some have argued that impacts of Refuge crossings can be fully mitigated and thus should continue to be considered. The Mendenhall Wetlands Study Group strongly disagrees. The Refuge consists of functioning intertidal wetlands which cannot be successfully manufactured. Even if they could be, the FAA has not allowed enhancement of wetland habitats on the Refuge for fear of increasing hazards of bird strikes. Cross-Refuge route alternatives impact primarily intertidal wetlands, which in Alaska are owned by the municipalities and the State, thus there are few if any options to purchase and protect functioning intertidal wetlands as mitigation. It is important to remember that, as we illustrated in our previous comments to the PEL Study Group (see: January 30, 2023 Mendenhall Wetlands Study Group document), the Mendenhall Wetlands are a unique and rare occurrence in Southeast Alaska. They rank along with the Stikine and Yakutat Forelands in their regional and global importance to migrating birds. They also provide significant support to the other fish and wildlife of Juneau and the region. We should do all we can to make sure Juneau meets its needs for safety and expansion without destroying this critical and unique resource that is at the center of our community.

From:	Morgan McCammon
To:	Matt Robus
Cc:	Frank Rue; Alex Wertheimet; Bob Armstrong; Bruce Baker; Catherine Pohl; Dan Teske; Dave Gaudet; Deb Rudis; Diane Mayer; Doug Larsen; Jay Nelson; Laurie Craig; Michael Stanley; Neil Stichert; Richard Carstensen; Ron Somerville; Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda; Margaret Custer; Keller, Nina (DOT); Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Taylor, Jill A (DOT); Katie Koester; Bridget LaPenter; Irene Gallion; Steven Noble; Renee Whitesell; Jovie Garcia; Theresa Dutchuk; Ryane Gray; Marella Gungob; Michael Horntvedt; Mike Hall; Denise Koch; Morgan McCammon
Subject:	RE: [EXT] Mendenhall Wetlands Study Group comments on PEL Level 2 screening
Date:	Wednesday, April 10, 2024 1:41:33 PM

Good afternoon, Matt and Mendenhall Wetlands Study Group members,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Matt Robus [redacted]>
Sent: Wednesday, April 10, 2024 12:45 PM
To: Morgan McCammon <[redacted]>
Cc: Frank Rue [redacted]>; Alex Wertheimet [redacted]; Bob Armstrong <[redacted]>; Bruce Baker <[redacted]>; Catherine Pohl [redacted]>; Dan Teske <[redacted]; Dave Gaudet [redacted] Deb Rudis [redacted] Diane Mayer <[redacted]>; Doug Larsen <[redacted]>; Jay Nelson <[redacted]>; Laurie Craig <[redacted]>; Michael Stanley <[redacted]>; Neil Stichert [redacted]>; Richard Carstensen [redacted]>; Ron Somerville [redacted]>; Ryan Scott <[redacted]>; Schumacher, Tom V (DFG) [redacted]>; Steve Peterson <[redacted]>; Wright, Brenda [redacted]>; Margaret Custer [redacted]>; Keller, Nina (DOT) [redacted]; Heidemann, Marie E (DOT) <[redacted]>; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) <[redacted]>; Taylor, Jill A (DOT) [redacted]; Katie Koester [redacted]; Bridget LaPenter <b[redacted]; Irene Gallion [redacted]; Steven Noble [redacted]; Renee Whitesell <[redacted]; Jovie Garcia [redacted]; Theresa Dutchuk [redacted]>; Ryane Gray <[redacted]>; Marella Gungob <[redacted]>; Michael Horntvedt <[redacted]>; Mike Hall [redacted]>; Denise Koch <[redacted]
Subject: [EXT] Mendenhall Wetlands Study Group comments on PEL Level 2 screening

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good afternoon, Morgan,

On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate.

Thank you for the opportunity to comment.

Matt Robus

Mendenhall Wetlands Study Group

Comments on the Level 2 Screening Results

for the

Juneau Douglas North Crossing PEL Study

April 10, 2024

Executive Summary

This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative.

Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation.

Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse.

The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge.

The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while deferring a rigorous analysis of anticipated environmental impacts to the NEPA process.

The Study Group agrees with DOWL's public statements that if a crossing is built, it should be a piling-supported rather than a solid-fill structure.

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Introduction

Study Group Qualifications

The Mendenhall Wetlands Study Group (MWSG) is a group of scientists and resource managers that was formed to provide review and expert advice to the PEL Study. The ad-hoc steering committee for the MWSG is composed of a former Alaska Department of Fish and Game (ADF&G) Commissioner, a former ADF&G Deputy Commissioner, a former ADF&G Director of Wildlife Conservation, and a former NOAA Fishery Research Biologist with forty years of experience in the study and management of Alaska salmon. The larger group is composed mainly of Fisheries Biologists, Wildlife Biologists, Conservation Biologists, Habitat Biologists, Habitat Mapping and Evaluation Specialists, Naturalists, and Natural Resource Managers. Many of the studies referenced in our January 30, 2023 Comments and Recommendations (Attachment 1) were conducted and written by members of our study group.

Mendenhall Wetlands State Game Refuge

We continue to stress the fact that the Mendenhall Wetlands constitute a uniquely productive and diverse ecosystem. Because of its 24-foot extreme tidal range and the variety of freshwater and glacial inputs, it contains diverse and complex habitats used by a wide variety of species. For example, 256 species of birds have been observed on the Wetlands. Further, the Wetlands have been recognized as a Globally Important Bird Area, a status achieved by habitats that support more than 1% of a species globally; the Mendenhall Wetlands IBA supports more than 1% of the international populations of 34 different species of birds. The Mendenhall Wetlands rank along with the Stikine Flats and the Yakutat Forelands as the most significant stopover points for shorebirds to rest and refuel on their long migrations through the region. Identified in the Alaska Shorebird Conservation Plan Vol. III (Alaska Shorebird Working Group, 2019) as a state and regional priority for habitat protection and management, the Mendenhall wetlands area hosts 16 of the 17 shorebird species of greatest conservation concern in Alaska and 11 more identified as stewardship priorities due to Alaska's share of the population. Alaska Shorebird Plan (VII) conservation priority species are adopted by reference and listed among Species of Greatest Conservation Need in the State of Alaska's 2015 Wildlife Action Plan.

International travelers using the area include Snow Geese from Russia and Greater Yellowlegs from Tierra Del Fuego among many others. Alaskan long distance migrants include many of the Mallards seen wintering on the Wetlands which travel to nest on the Yukon Delta. The Wetlands also provide a key wintering area for a large portion of the region's distinctive forest-nesting

goose population (Vancouver Canada Goose), with up to 700 using the Refuge's key salt marsh and slough habitats, including the proposed Sunny Point and Vanderbilt Creek alignments.

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates, and some mammals on the Juneau road system. Our January 30, 2023 comments included an extensive bibliography documenting the bird, fish, invertebrate, and wildlife resources on the Wetlands; it does not appear that this information was used in the PEL study. We again recommend it be used by DOWL and ADOT&PF in future analyses documenting the impacts of different crossing alternatives.

In recognition of these values and the need to conserve them, the Mendenhall Wetlands State Game Refuge (encompassing most, but not all of the Mendenhall Wetlands) was created in 1976, after more than a decade of citizen involvement. State and federal legislation require development projects within such special areas to take all measures to avoid, but also to minimize and mitigate effects upon refuge resources and uses.

As per state statutory responsibility , conditions for permitting should be specified to meet standards consistent with protection of fish and wildlife ,public use and resource use, with no adverse effect on fish and wildlife , their habitat , or public use as per 5AAC 95.430, as well as mitigation in accordance with 5AAC 95.430 and 5AAC 95.520. Nowhere in the planning has this been clear depicted or defined. Criteria enumerating and describing how the project will avoid, minimize, and mitigate impacts as per state statutes needs to be added and clearly defined.

Off-Refuge Crossing Priority

Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF **must** select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives.

Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive

areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.

Reference Actual Time Savings of All Alternatives

The Purpose and Need criterion of "Improving travel times" should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ's highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives.

The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF's travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.

Crossing Structures Limited to Elevated Structures

We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.

Re-scoring the DOWL Matrix

DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels.

First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.

Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.

Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).

The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and

viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.

The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.

1. Purpose and Needs:

Criterion: "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"

DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).

Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.

The alternatives should be re-scored to reflect the gradient of impact:
Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.

Scores for "Decrease Congestion Douglas Island Bridge/Intersections"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	+1	+1	+1	+1	+1	+1
MWSG	-1	0	0	+1	+2	+2

2. Additional Goals:

Criterion: "Avoid, minimize, and mitigate impacts to the environment"

DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.

A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key "environmental linkages" – the purpose of the Planning and Environmental Linkages (PEL) process.

Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).

Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL's choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek.

The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.

Scores for "Avoid, minimize, and mitigate impacts to the environment."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-2	-2	-2	-2
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: <u>"Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island"</u>

DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau's

Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.

Scores for "Maintain the visual, cultural, and scenic identity."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-1.5	-1.5	-1

3. Environmental Screening

Criterion: "Wetlands directly impacted"

DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for "impervious surfaces added", but is an incomplete description of the structures' impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.

Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL's acreage tally. DOWL's recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion

was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.

Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.

The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary.

Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.

Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.

Scores for "Wetlands Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-1	-2	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Intertidal zone directly impacted"

DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.

According to communications from the PEL team the wetland acreages were being tallied for all "wetlands and waters" jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL's acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected.

Scores for "Intertidal Zone Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	-1	-1	-2	-2	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "EFH (Essential Fish Habitat) Directly Affected"

As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion "Fish Habitat Affected". We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.

Scores for " Fish Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	0	0	-2	-2	-1
MWSG	-1	-2	-2	-2	-2	-1

Criterion: " Wildlife habitat directly impacted"

This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.

Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.

Scores for " Wildlife Habitat Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	0	-2	-1	0
MWSG	-2	-2	-2	-2	-1	-1

Criterion: "Important migratory bird habitat directly impacted"

Bird Habitat Impact Criteria & Rating Issues

Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.

DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly

nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.

The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.

eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.

We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations.

In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.

Sunny Point East and West

SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.

Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.

The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.

The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.

The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.

Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent

undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.

Mendenhall Peninsula

The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, *Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003* (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.

The Mendenhall Peninsula crossing alternative runs through the top bird "hotspot" at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as "first tier" for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these "first tier hotspots," representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).

Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge's "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The "Hotspots" authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two "second tier hotspots," the channels, rockweed beds, and tideflats

extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of “seasonal hotspot” f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.

Salmon Creek

The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 “top tier” refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).

On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.

Twin Lakes

Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting

season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt ("Pioneer") marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a "nearby hotspot" in the Hotspots report, important as a "refuge from the refuge" and for wildlife viewing (Armstrong et al., 2004).

The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a "second tier hotspot" and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.

Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.

Salmon Creek

The Twin and Vanderbilt impact areas overlap at Vanderbilt (or "Pioneer") marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered "nearby hotspots" (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.

The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt ("Pioneer") marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek's glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a

large tidal "island." Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a "refuge within the refuge" for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal "island."

The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).

We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area's role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.

In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.

References: Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003, Juneau Audubon Society and Taku Conservation Society, 2004. Juneau, AK.

eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: http://www.ebird.org.

Alaska Shorebird Group. 2019. Alaska Shorebird Conservation Plan. Version III. Alaska Shorebird Group, Anchorage, AK.

Scores for "Important Migratory Bird Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	-2	0	-1	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Section 4(f)/6(f) resources affected"

DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative.

Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.

Scores for "Section 4(f)/6(f) resources affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "Protected lands directly affected"

DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.

In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.

In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.

When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.

Scores for "Protected lands directly affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	-2	0	0	0
MWSG	-2	-2	-2	-1.5	-1	-0.5

Criterion: "Social"

This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.

DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.

ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.

The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.

Scores for "Social: Community Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	-1	0	-1
MWSG	-1	-2	-2	-1	-1	-1

Criterion: "Cost: Estimated Total Construction"

Because construction cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives at 0. DOWL has now provided estimated construction costs, and we have scored them to consider them in the ranking process.

DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.

MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.

Scores for "Estimated Total Construction Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	0	0	+2	+1	+1

Criterion: Cost: "Estimated Annual Maintenance"

Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.

Scores for "Estimated Annual Maintenance Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	-1	-1	+1	+2	+2

Summary of Scores

The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative.

Summary Table: Cumulative Scores for All Criteria
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-11	-8	-3	-10	-6	-14
MWSG	-23	–20	-17	-11	-6	-10.5

MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity:

Lowest Impacts	Twin Lakes	-6
	Salmon Creek	-10.5
↕	Vanderbilt	–11
	East Sunny Point	-17
	West Sunny Point	-20
Highest Impacts	Mendenhall Peninsula	-23

A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.

Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives.

The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.

The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.

If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.

The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: "1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation." The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis.

The National Transportation Act of 1966 provides instruction under Section 4(f):

"The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. **After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.**"

If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats.

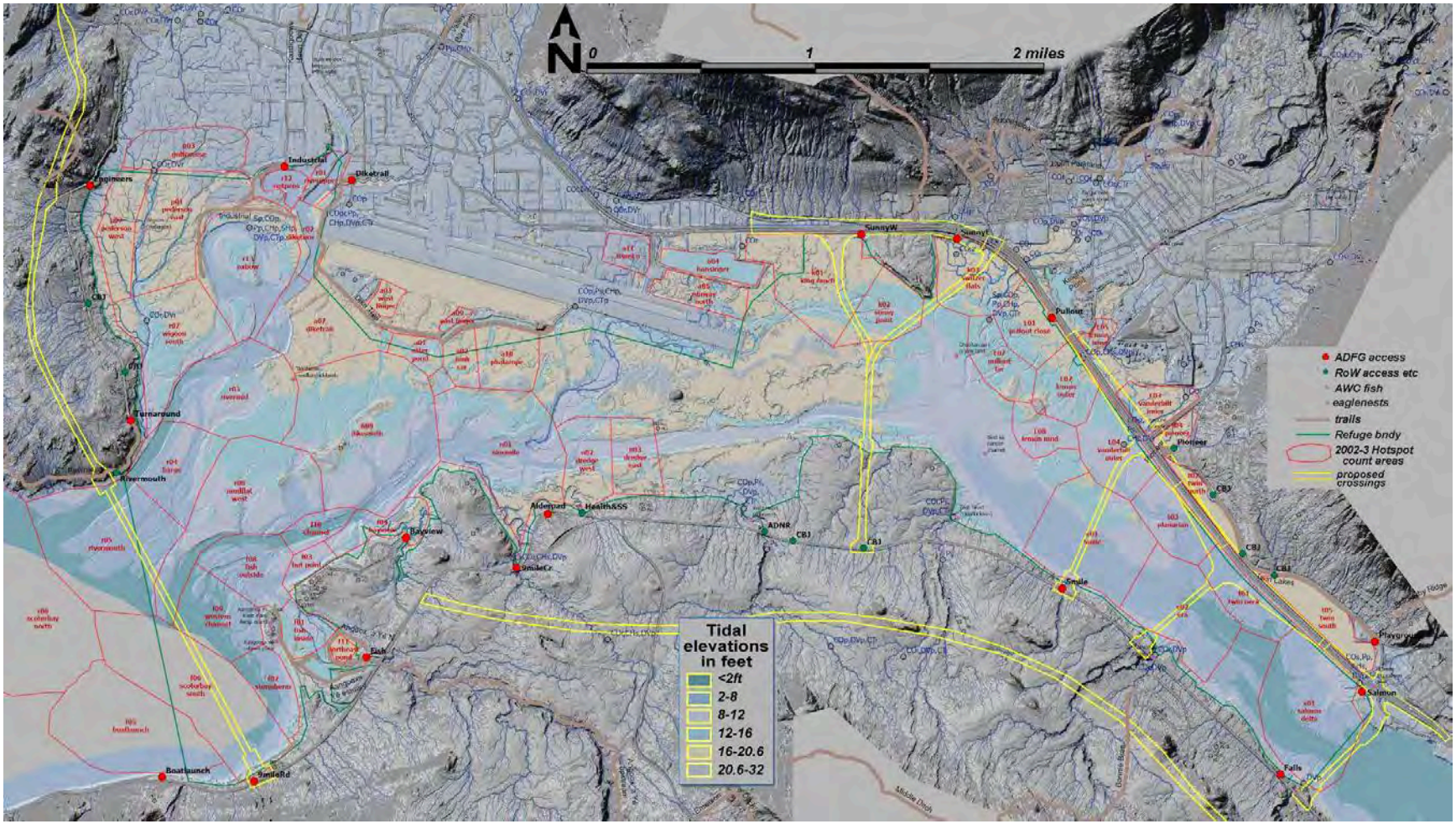
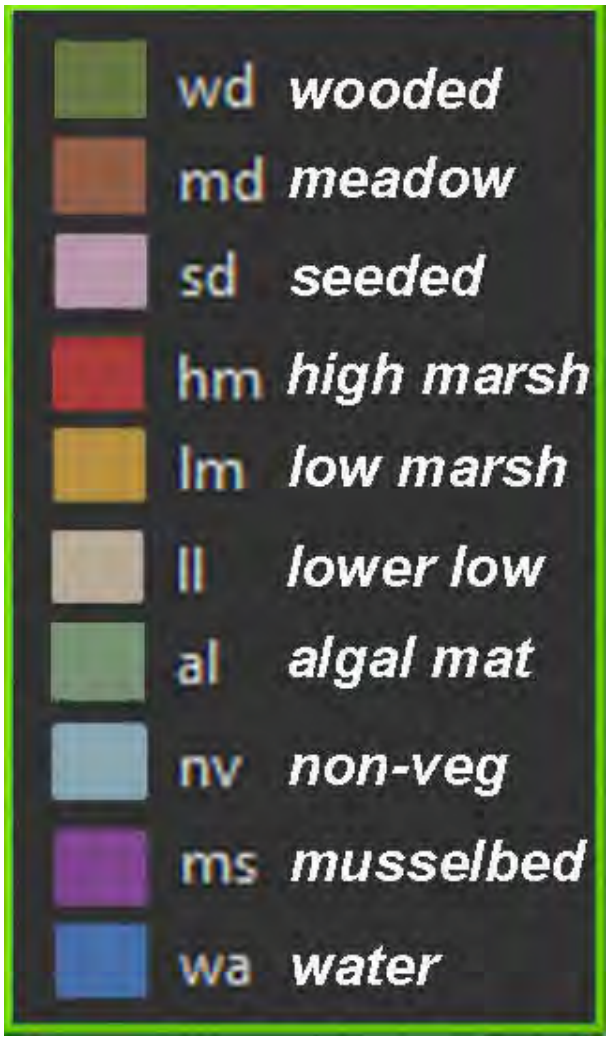
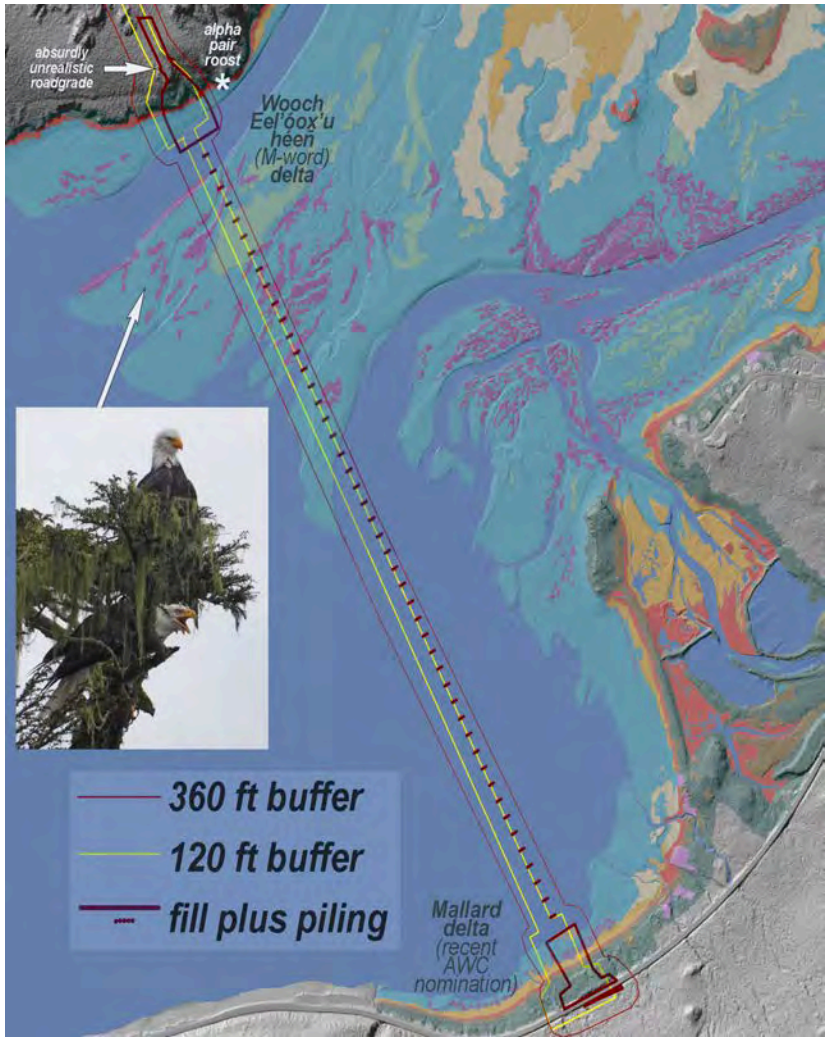

N
0
1
2 miles
ADFG access
RoW access etc
AWC fish
eaglenests
trails
Refuge bndy
2002-3 Hotspot count areas
proposed crossings
Tidal elevations in feet
<2ft
2-8
8-12
12-16
16-20.6
20.6-32
Industrial
Diketrail
Engineers
SunnyW
Pullout
Pioneer
Turnaround
Rivermouth
Aldenpad
Health&SS
Bayview
SmileCr
ADNR
Smile
Fish
Boatlaunch
SmileRd
Falls
Salmon
CBJ

Figure 1.

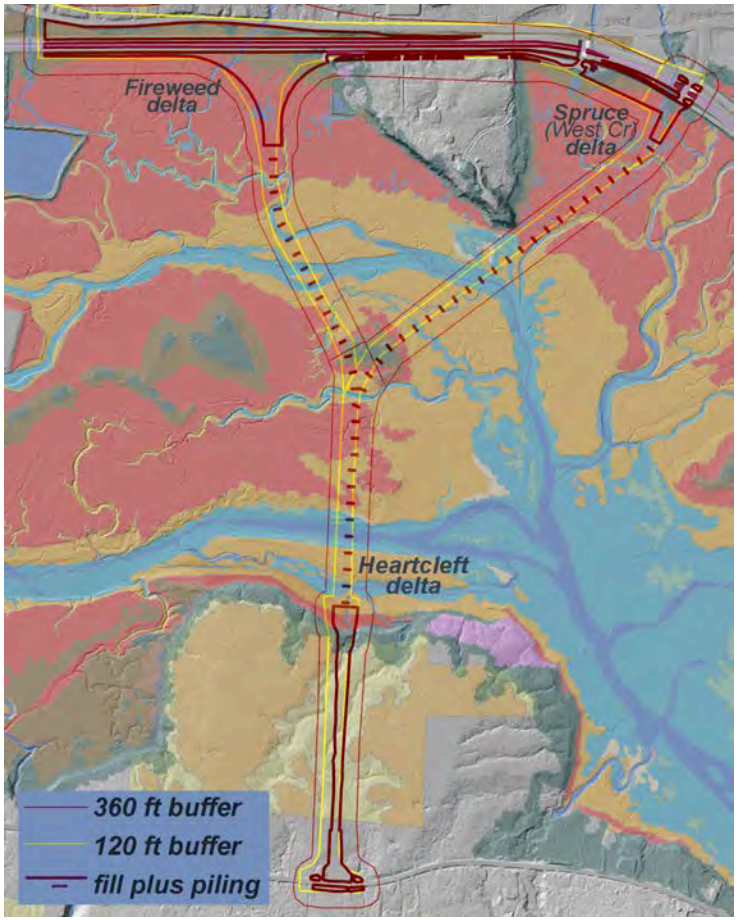
Map Key



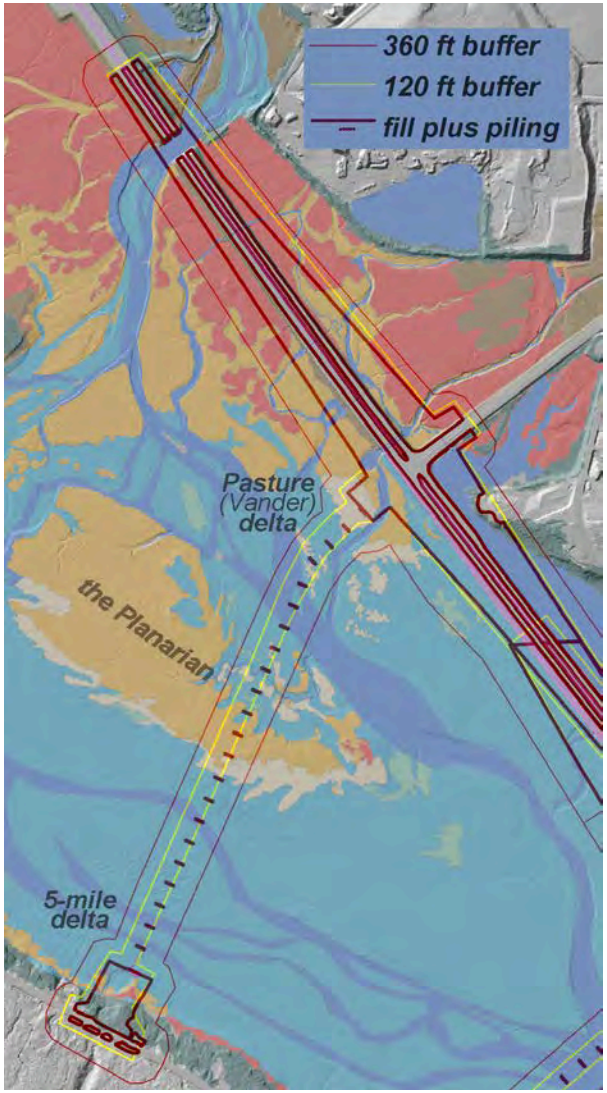
Mendenhall Peninsula



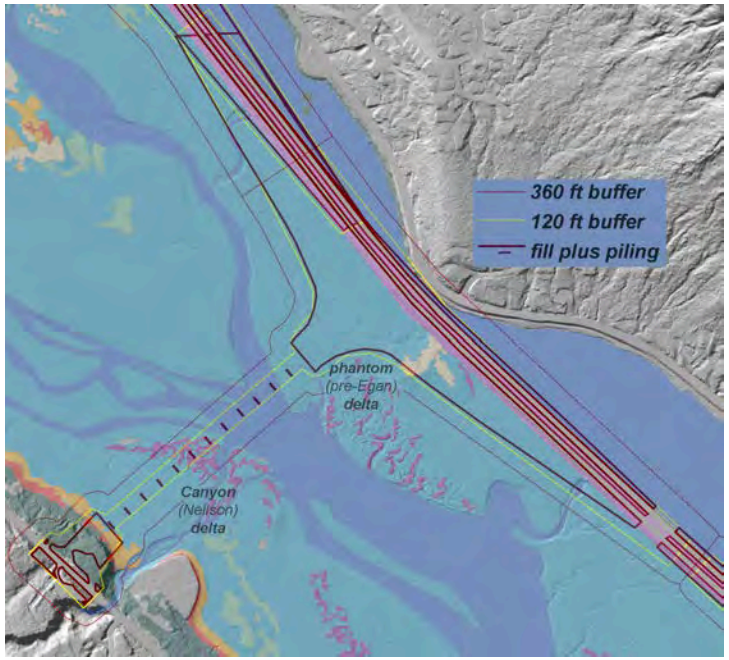
West & East Sunny Point



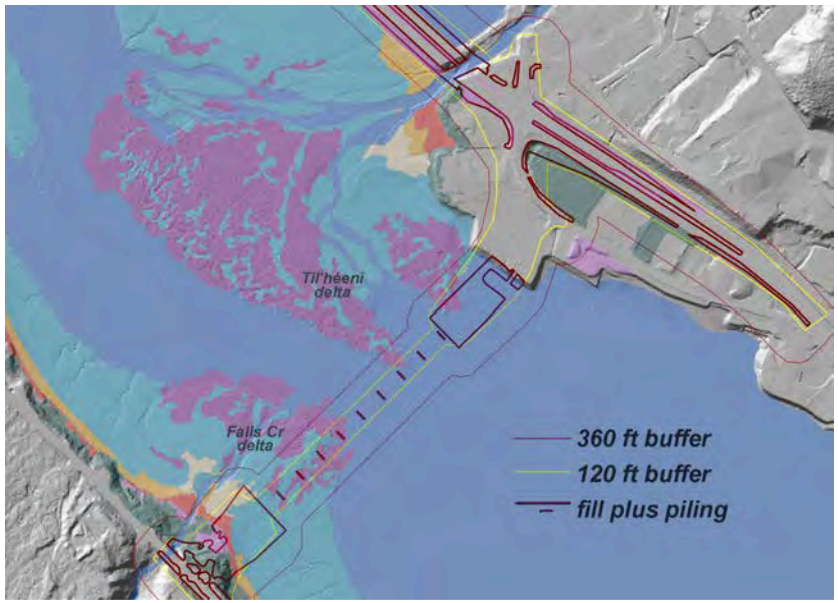
Vanderbilt



Twin Lakes



Salmon Creek



Attachment 1

Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department ofNatural Resources (Office ofHabitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending 9n the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment ... " and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden - Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden *(Salvelinus ma/ma)* in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery-Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance - On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus,* in Southeastern Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R.H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R.H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn-access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (0. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and KV. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL; http://www.ecologyandsociety.org/vol14/ issl/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Short-billed Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose *(Branta canadensis fulva),* which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards.** They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle--In** 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird-too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Hodges, J. I., and B. Conant 1986. Experimental Vancouver Canada Goose Survey-Northern Portion of Southeast Alaska. Waterfowl Investigations, U.S. Fish and Wildlife Service, Juneau, Alaska. 9 pp.

King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

Watson, S. 1979. Avian habitats and use of the Mendenhall Wetlands Wildlife Refuge, 30 April-30 June 1979. ADF&G unpublished report, Juneau, AK 28 pp.

Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles *(Microtus longicaudus)* are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long_ as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES *OFFICE OF HABITAT MANAGEMENT AND PERMITTING*
JUNEAU AREA OFFICE

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22 December, 2003
Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Luk.shin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview
The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review ofDNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion *(366-045-84* and *366-122-84,* 11/8/85), addresses in detail the land management authorities ofDNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals *(Refuge Mgmt Plan 5 AAC 95.520):* "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--

*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm _boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700-760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not raking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.l 0) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of Sl,lbsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation."

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations

Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria

Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment

Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include :freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information

We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle

Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
Robin Willis, ADF&G, Anchorage
Wayne Dolezal, ADF&G, Anchorage
Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

From:	Morgan McCammon
To:	Matt Robus; PUB-JDNorthCrossing; Theresa Dutchuk
Cc:	Ronald
Subject:	FW: [EXT] Transmittal of 5/23/24 meeting summary (.docx file attached)
Date:	Tuesday, June 18, 2024 11:24:59 AM
Attachments:	MWSG May PEL Meeting Summary.docx

Good morning, Matt,

Thank you for sharing your comments and meeting summary. I am share these with the rest of the team.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Matt Robus <[redacted]>
Sent: Tuesday, June 18, 2024 11:01 AM
To: Morgan McCammon [redacted]>
Subject: [EXT] Transmittal of 5/23/24 meeting summary (.docx file attached)

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good Morning Morgan- Please forward as appropriate to Juneau North Crossing PEL team members. Thanks - Matt Robus

Dear Juneau North Crossing PEL team:

The Mendenhall Wetlands Study Group (MWSG) consists of more than 20 Juneau wetlands specialists, former state and federal fish and wildlife employees, habitat professionals, and local conservation organization leaders. The MWSG was formed when it became apparent that a new effort to plan a crossing between mainland Juneau and Douglas Island was imminent, and has been a participant as an advisory group member since the inception of the PEL process. As you know, the MWSG strongly believes a scientifically accurate analysis of wetland resources and uses is essential to providing a credible comparison of the alternative crossing locations and designs in terms of their impacts to the resources and to the integrity of the Mendenhall Wetlands State Game Refuge, and is paramount for making wise choices for North Crossing routes.

This letter is to transmit our summary (attached) of our meeting on May 23, 2024 at which we discussed many of the concerns expressed by the MWSG in our comments on the preliminary Level 2 screening presented to the PEL advisory groups. Our purpose in creating this summary is to document what we learned at the meeting, and also issues which weren't addressed, and/or which will require more work.

Thank you again for meeting with us. Please contact Ron Somerville ([redacted] if you have questions or disagreement with the attached meeting summary.

On behalf of the MWSG,

Matthew H. Robus
[redacted]

Mendenhall Wetlands Study Group Meeting with N. Douglas Crossing PEL team, 5/23/2024

Present: MWSG members: Matt Robus, Frank Rue, Alex Wertheimer, Catherine Pohl; ADF&G: Roy Churchwell; DOWL: Theresa Dutchuk, Adam Morrill, Mike Hall (Parametrix)

Update, rating revision--

We appreciate the update on the North Douglas Crossing PEL process and are encouraged that the PEL team is looking to revise the rating criteria in response to comments from our group and others, and in particular that you will adjust weighting for the refuge and its resources, increasing its importance in the ranking of alternatives. DOWL staff also mentioned that the approach to bird habitat rating has changed, noting that the revised rating will reflect the status, and reality, of the entire refuge as important migratory bird habitat. We asked if this meant that bird habitat impacts would be rated the same at each crossing on the refuge, but the answer was not clear.

We reiterated our views on the importance of the center of the refuge and its extensive marsh and channel complex, with narrowing and less central wetlands to the southeast. We stressed that habitat fragmentation and resulting functional and ecosystem effects of bisecting the refuge should be considered in planning and impact analysis. As in our comments, we emphasized the special habitat functions of deltas, including the river mouth as well as the large and small stream mouth deltas found within each currently proposed crossing.

ADF&G's Roy Churchwell confirmed that they have provided hunter use data; you stated that the project team is not yet using it. We suggested that in addition to refuge-specific ratings that include intactness, access, hunter and recreational use, and refuge resources, there should also be separate consideration of wetland and habitat impacts independent of refuge status.

It appears that the new ratings may be more habitat-focused; it was not clear if bird observation data would also contribute to the impact ratings. It was stated that DOWL is considering how to incorporate impacts of elevated structures in addition to the pilings' circumference but is not including construction impacts. The PEL team could not say how pilings would be placed in the upper intertidal, whether there would be vehicles crossing the salt marsh, or what impacts to vegetation or soils would result. It was not clear if there would be a return to including non-elevated crossing structures during NEPA.

When asked for specifics, Ms. Dutchuk repeated that she could not share anything more about the revised ratings, what approaches were under consideration etc, until they had been approved by ADOT. It was not clear whether the team was just beginning to develop new criteria or had completed them and was waiting for approval, given repeated references to ADOT approvals. There may be issues currently being worked out for which we and others could provide relevant input. For example, the agencies have suggested a panel to help guide refuge and habitat impact ratings.

Bird data and draft rating Q's--

The following questions spurred the MWSG's 5_23_24 meeting with your project team as a followup to our last meeting; unfortunately, they remain unanswered. While the draft bird habitat rating has apparently been scrapped, issues regarding bird observation datasets, impact areas, and how to use observation data remain, so we repeat the questions here:

> *"[Q1]* ***What are the bird data points*** *[displayed as 500 ft circles on your project data portal, some sort of subset from eBird that omits important observations]****?***
>
> *[Q2]* ***In using these points, how do you account for impacts from the piling and elevated structures and the disturbed areas within and near them?***
>
> *[Q3]* ***Why did you put only a 500-foot buffer around points, and what will be done to correct this in the next draft?***

To illustrate Q1, we "screen-shared" a GIS map of observation points from a complete download of the eBird database for the Juneau area from 1994 to 2024. The map depicted observations of flocks of 20 or more Canada geese; there were several such points off the tip of Sunny Point well within 500 feet of the proposed alignment (Figure 1). None of these were on your data portal's bird habitat impact map layer (Figure 2), and the draft PEL bird habitat impact rating for the high bird-use area at East Sunny Point instead was zero. The data table for these point files shows many observations of over a hundred geese and several hundred mallards in this same area (Figures 3 & 4), all missing from your bird habitat data layer and rating analysis. At this meeting staff were unable to provide an explanation for the missing data, although we had asked about the bird dataset and impact rating weeks before, and it was to be a primary subject of the meeting. As noted in our PEL draft Level 2 rating comments, the Sunny Point area provides well-documented foraging and resting habitat for waterfowl and shorebirds, with particularly heavy use in late winter and early spring by the region's wintering and migrating waterfowl. An alignment in this area would not be rated "zero" for bird habitat impact in any valid rating scheme.

The footprint used for impact quantification, Q2, was not answered, although it was mentioned that elevated structure impacts may be included in the next draft. The rationale for the draft rating's 500-foot buffer, Q3, remains unaddressed. Rather than using a minimal point buffer, the habitat importance could be attributed to a larger viewed area, at the scale of the observation areas outlined for the Armstrong et al Hotspots survey (Figure 4) or the previous Cain et al. 1988 USFWS survey [10]. These observation areas can generally be inferred from local use patterns, viewshed, and the effort and location data. Or more simply, flock observations within a section of the wetlands, such as a Hotspots survey area, could contribute to a habitat metric for that section.

The Parametrix wildlife specialist noted some of the difficulties inherent in combining habitat and bird observations to assess impact and suggested that they may dispense with all bird observation data in favor of generalities regarding habitat. We countered that the bird data is extensive, and it is useful when applied with its meaning and limitations in mind. Bird observation data is essential since some aspects of habitat use cannot be predicted from DOWL's simple habitat typing alone. Examples are locations that have very specific habitat or combinations of habitats and location.

At Sunny Point these include wet high marsh edges and early-sprouting or succulent low marsh as well as shoreline or island edges near extensive salt marsh/channel complexes. Safe feeding, bathing and resting places that provide refuge from disturbance or predation due to isolation and location also may be hard to predict from simple habitat typing alone. We noted that these "special habitat" areas are consistently used by large flocks of winter resident and migrant birds year to year, particularly where they intersect with the Sunny Point and Vanderbilt alignments; we illustrated these via shared GIS screen. In particular, we pointed out the between-channel bar off Hendrickson Point where we have had multiple reports of consistent use by resting/roosting flocks. The little-disturbed shoreline between Hendrickson and 5 Mile Creeks and the adjacent wetland "island" off Vanderbilt Creek also function as "refuge within the refuge."

While sharing our elevation basemap that roughly correlates with habitat types, we pointed out the similarity in habitat between the East and West Sunny Pt alignments. Both of these also have special habitats and locations such as wet high marsh with freshwater influence that provides early-season forage, and isolated shoreline and uplift meadow used for resting. As we have previously noted, the bird habitat impact would likely be similar as well, especially since they share much of their length. In previous comments, we also mentioned that neither of the Sunny Pt alignments could be considered minimizing impacts even considering their initiation point. They both have a "dog-leg" that makes them longer than a straight crossing and brings them closer to the tip of Sunny Point and its productive channels and lower low marsh.

Ongoing efforts to design a "repeatable" method for impact rating were mentioned. Given that DOWL has not been able to explain, let alone repeat, the bird habitat rating method used thus far, this is encouraging. We concur, but caution that a method can be repeatable but irrelevant or only weakly informative; in addition to being well-documented, the method should also capture key use areas using the best available information and supportable assumptions. While it is good to have a high bar for the PEL habitat impact rating, discarding the best and most site-specific information – in this case eBird, the Hotspots survey, and other observations – is not the way to do that. It is certainly a non-trivial task to come up with a credible habitat rating using the available bird and habitat data, but it can be done.

The wildlife specialist mentioned his bird/habitat report when asked about the previous bird habitat rating. Unfortunately, the Parametrix bird survey and report did not contribute

meaningfully to what is already known about bird habitat use in the project area or in any way to the draft bird habitat rating, although we agree with its suggestion that habitat can supplement observations as a basis for impact assessment, particularly in areas where birding or survey effort is thin or lacking.

He mentioned that if they do use eBird data for the next rating draft, it would be according to Cornell Lab guidelines. Other than Terms of Use involving crediting and conditions for publishing/sharing, the Cornell Lab does not specify how to use its data although it should be scientifically supportable and well-documented. Raw data should be requested directly from the Cornell Lab, and any shared data products, or subsequent sharing, including the map graphics within this document, must be accompanied by Terms of Use (included at the end of this document). The Lab recommends consulting articles that include best practices for statistical modeling of species distributions using eBird data [1].

We again referred the team to the 2004 Armstrong et al “Hotspots” study which also has an extensive spatial bird observation database [2]. Along with the more current but less systematic eBird database [3], it could contribute to impact rating if used appropriately. Our PEL draft Level 2 comments note the strengths and limitations of the Hotspots data and analysis, including its low-tide and accessible-area focus. At the 5/23 meeting, we shared a GIS screen showing roughly outlined survey area polygons associated with each survey “point” (Figure 5).

When we asked if DOWL planned to assemble an expert panel to help guide bird habitat impact assessment as suggested in some of the comments, they said they have considered it and may do that at some point. After further questioning, we were disappointed to hear that DOWL would not seek advice from an expert panel before the next draft (which would supposedly be the final).

Freshwater Wetlands

We asked the wetlands specialist, Adam Morrill, what might account for the multi-acre discrepancies in mapped wetlands between DOWL's wetland delineations at Hendrickson Point and Mendenhall Peninsula and those of the CBJ Wetland Management Plan [4, 5]. We illustrated this with a GIS screen share (Figure 6) of the CBJ 2014 planning-level delineation at Hendrickson Point with DOWL’s delineation overlaid. Regarding Hendrickson, he said the central sample point (SP-14) was upland due to a thin organic layer and non-hydric soil. We mentioned that on the data form, this sample point had both hydric soil and wetland hydrology but lacked hydrophytic vegetation.

We shared that a group member concerned about this mapping discrepancy visited the Hendrickson Point delineation area with another wetland specialist after reviewing the DOWL field report. They located the "upland" sample point in question (SP-14) and found that its

vicinity and most of the area between the shoreline forest and the road appeared to be wetland. In their transit through the delineation area, they did not notice organic layers thinner than 8 inches except along the stream and in the shoreline forest. Organics only have to be saturated for 14 or more consecutive days during the growing season to be considered hydric soil [6].

We mentioned that *Menziesia ferruginia* (*Rhododenron menziesii*, rusty menziesia), a shrub common in our bog-edge wetlands, is inappropriately listed as a facultative upland indicator species (FACU) for Alaska, which can result in a label of non-hydrophytic vegetation in what would otherwise be considered a wetland, particularly when wetland adaptation/growth form is not taken into account [7]. For example, the *Menziesia* in much of the central Hendrickson point area could potentially contribute to a "hydrophytic" classification where it is stilted and restricted to hummocks. Mossy tree boles and hummocks within the wetland area may also account for the *Cornus canadensis* (ground dogwood, also FACU) recorded in sample point 14.

While a wetland delineation of a fairly extensive area can be documented with few sample points, the points must be representative of the larger area; less homogeneous areas may require further documentation. We therefore asked how much of the area was traversed. The specialist related that they started at the road and moved through the area zigzagging for coverage. The alder swamp where the alignment was entered an from the road was mapped by DOWL as upland even though DOWL's photo point (#36) shows skunk cabbage and standing water (Figure 7). Other points in most of the delineation area (photo-only pts) were restricted to the streams. If the rest of the area mapped as wetland in CBJ's plan was explored and sampled, there is no indication of that in the report.

As it stands, the apparently preferred alignment would fill a good deal more forested and scrub-shrub wetland than has been identified in DOWL's report or impact rating. It would fill and degrade two wetland streams supporting anadromous fish, and affect the habitat and recreational values of the entire surrounding natural area that includes extensive ancient peatland with public and conservation land status. There are also additional CBJ-mapped forested wetlands on the Mendenhall Peninsula that were not identified as wetland by the DOWL team.

As noted in our previous comments, the Hendrickson Point and Mendenhall Peninsula alignment areas should be re-surveyed for freshwater wetlands. Additional, and more representative, sample points are needed, with better spatial accuracy for repeatability and attention to wetland adaptations. Even with the new LiDAR that will be available this summer, and new imagery that is currently available, thorough field assessment will be needed for supportable project-level identification of forested and scrub-shrub wetlands. DOWL did not indicate plans to re-survey these freshwater wetlands.

Streams, deltas, and trails

With the relief map of the project area still screen-shared, we asked if the project design had taken into account the newly updated anadromous stream mapping by ADF&G. We pointed out numerous places where alignments were proposed over and adjacent to anadromous streams. These occur at each of the alignments. We noted that while structures can be, and are required to be, designed to reduce impacts of road crossings, with such extensive shorelines, there should be ways to AVOID placing fill pads or structures over salmon streams, as well as deltas and refuge access trails. Avoidance is generally the first condition of permitting in such situations.

At Hendrickson Point, the spur roadway fill footprint is placed over the length of long stretches of two streams rather than across them. Avoidance of key impact areas is the first step in environmentally sensitive planning. Alignments currently target streams, deltas, and refuge access trails; it would be difficult to meet the federal and state criteria of avoiding and minimizing impact for any of these as currently designed.

Summary

While we appreciate the project update and the opportunity to meet with your field staff and subcontractors, the key information we requested was not provided. For this review, we have compiled and shared information representing a significant investment of attention and expertise. A better balance in communication with advisory groups such as ours would be more respectful and help to inspire trust in the process and products. Two-way information flow is more efficient and in line with PEL guidance and purpose.

We are encouraged that the ongoing alternatives rating revision described at the meeting (increased refuge/resource weighting, expanded impact area, a new approach to bird habitat) may bring “environmental linkages” back toward the center of this “Planning and Environmental Linkages” project. We hope our input is useful in making the PEL process more transparent and productive and its products more scientifically accurate and credible.

FIGURES

Figure 1. Ebird Observations of 20 plus Canada Geese at E and W Sunny Pt alignments [8]

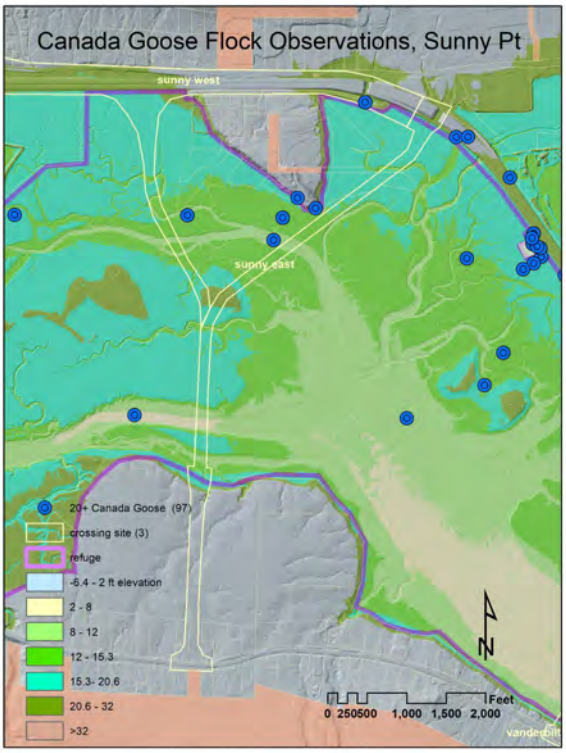


Figure 2. DOWL's partial eBird dataset and unexplained 500-ft buffers, Sunny Pt [9]

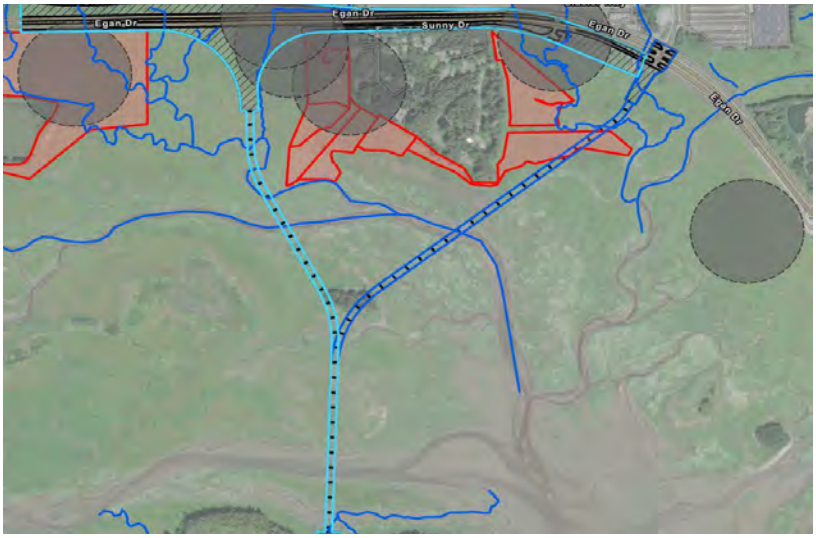
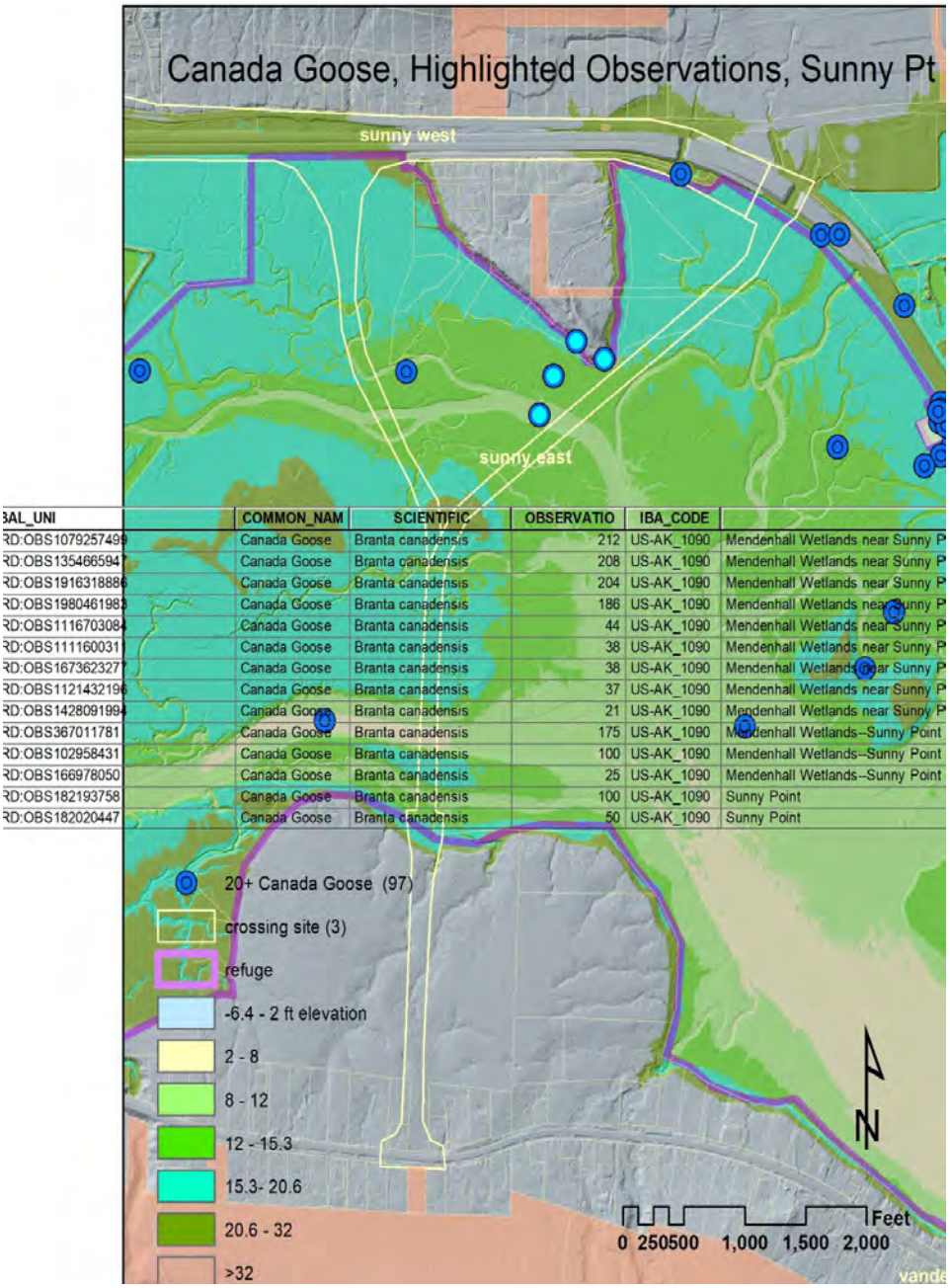


Figure 3. Goose flock counts (20+) for highlighted points missing from DOWL eBird subset [8]



BAL_UNI	COMMON_NAM	SCIENTIFIC	OBSERVATIO	IBA_CODE	
RD:OBS1079257499	Canada Goose	Branta canadensis	212	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS135466594	Canada Goose	Branta canadensis	208	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1916318886	Canada Goose	Branta canadensis	204	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1980461983	Canada Goose	Branta canadensis	186	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1116703084	Canada Goose	Branta canadensis	44	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1111600311	Canada Goose	Branta canadensis	38	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS167362327	Canada Goose	Branta canadensis	38	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1121432196	Canada Goose	Branta canadensis	37	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS1428091994	Canada Goose	Branta canadensis	21	US-AK_1090	Mendenhall Wetlands near Sunny P
RD:OBS367011781	Canada Goose	Branta canadensis	175	US-AK_1090	Mendenhall Wetlands--Sunny Point
RD:OBS102958431	Canada Goose	Branta canadensis	100	US-AK_1090	Mendenhall Wetlands--Sunny Point
RD:OBS166978050	Canada Goose	Branta canadensis	25	US-AK_1090	Mendenhall Wetlands--Sunny Point
RD:OBS182193758	Canada Goose	Branta canadensis	100	US-AK_1090	Sunny Point
RD:OBS182020447	Canada Goose	Branta canadensis	50	US-AK_1090	Sunny Point

Figure 4. Mallard 20+ flock counts for highlighted points missing from DOWL eBird subset [8]

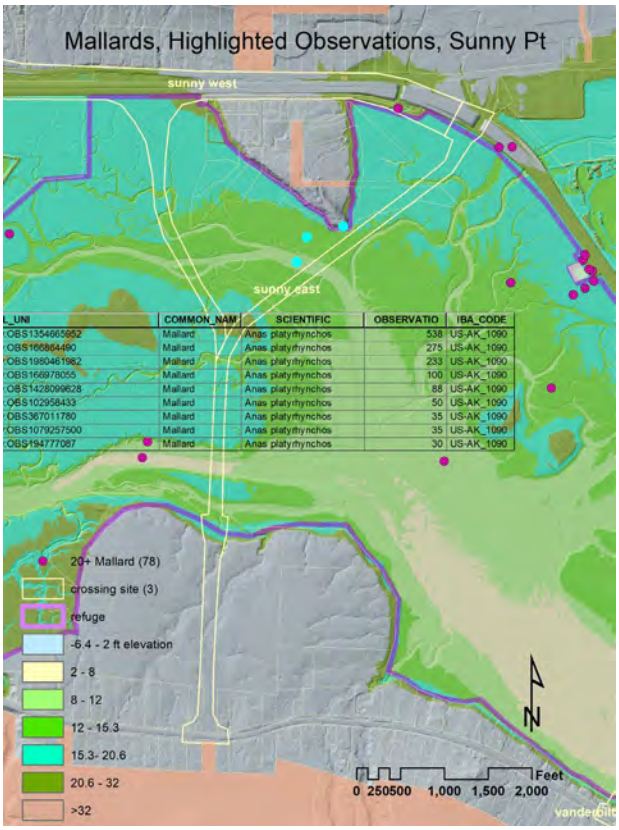


Figure 5. Armstrong et al. “Hotspots” report [2] survey areas, by Richard Carstensen

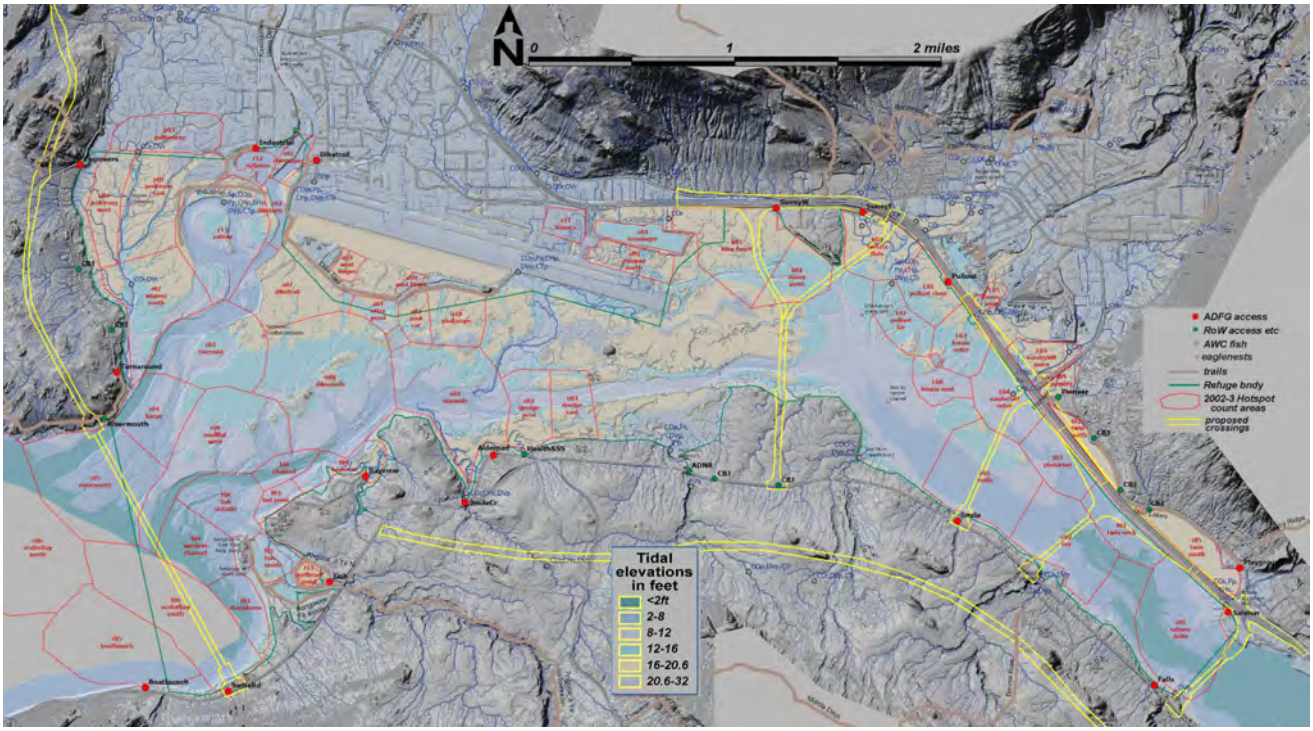


Figure 6. DOWL wetland delineation misses wetlands mapped in 2016 CBJ Plan [4,5]

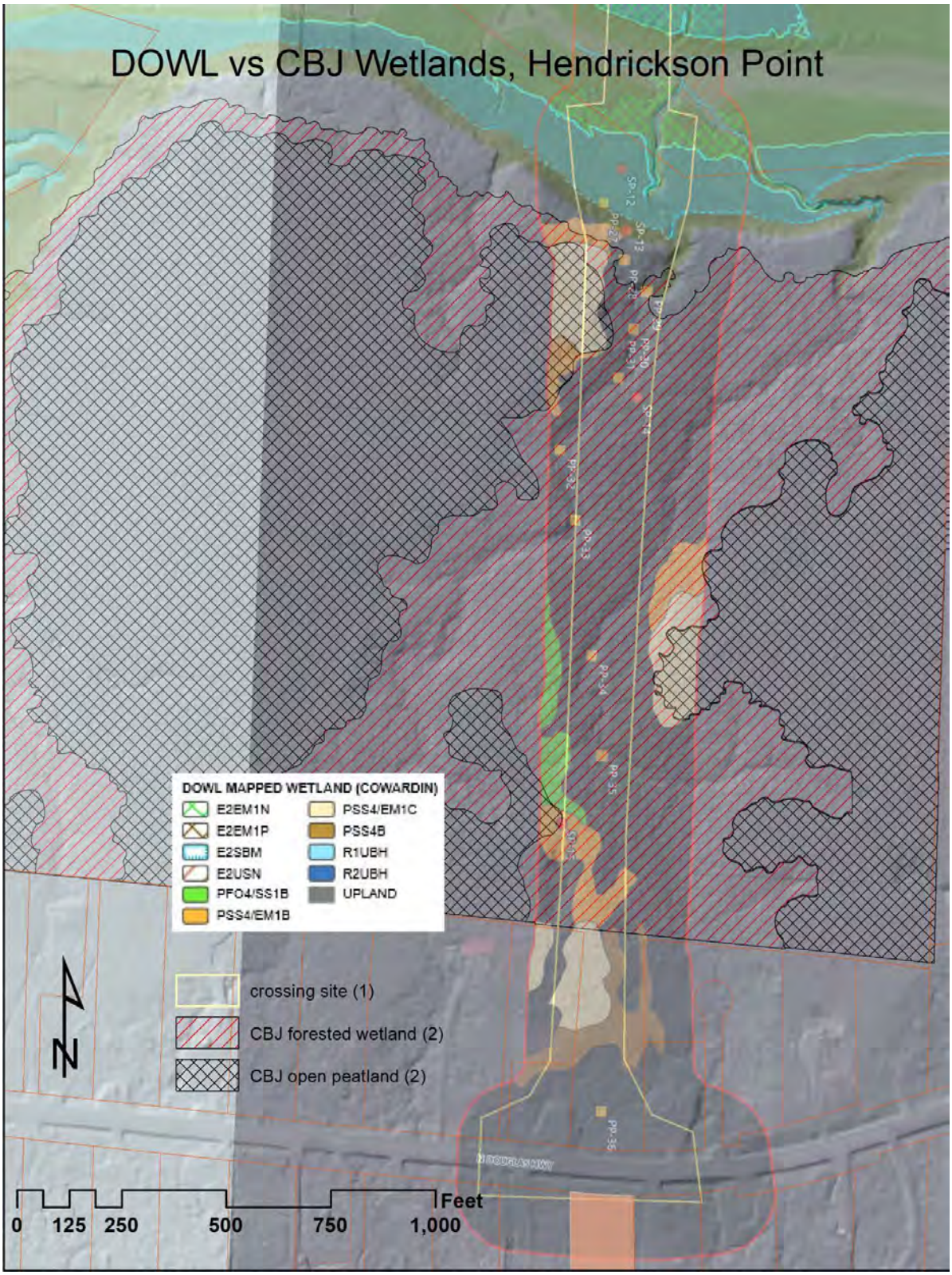


Figure 7. DOWL Photo Pt 36, alder swamp mapped as upland, Hendrickson Pt [4]

# 1138.63234.01 Wetland Delineation	Field Dates September 18 – September 23, 2023	Site Photos SP1 – SP15 PP1 – PP65
Photo Type: PP-36	Location Description: 58.33857, -134.53453	Landscape: FACING South



LANDSCAPE: FACING West



Observed ground cover, standing water



Citations

[1] Strimas-Mackey, M., W.M. Hochachka, V. Ruiz-Gutierrez, O.J. Robinson, E.T. Miller, T. Auer, S. Kelling, D. Fink, A. Johnston. 2023. Best Practices for Using eBird Data. Version 2.0. https://ebird.github.io/ebird-best-practices/. Cornell Lab of Ornithology, Ithaca, New York. https://doi.org/10.5281/zenodo.3620739 (to use as a supplement to Johnston, Alison, Wesley M. Hochachka, Matthew E. Strimas-Mackey, Viviana Ruiz Gutierrez, Orin J. Robinson, Eliot T. Miller, Tom Auer, Steve T. Kelling, and Daniel Fink. 2021. "Analytical Guidelines to Increase the Value of Community Science Data: An Example Using eBird Data to Estimate Species Distributions." Edited by Yoan Fourcade. *Diversity and Distributions* 27 (7): 1265–77. https://doi.org/10.1111/ddi.13271. For guidance when using eBird for scientific applications such as species distribution modeling)

[2] Armstrong, Robert H.; Carstensen, Richard L.; Willson, Mary F. 2004. Bird Use of the Mendenhall Wetlands 2002 to 2003. Audubon Society and Taku Conservation, Juneau, AK. https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf. (Raw data held by USFWS and R. Carstensen.)

[3] Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142: 2282-2292. (for background on eBird)

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[5] Bosworth Botanical Consulting. 2016. City and Borough of Juneau Wetlands Management Plan Final Report Volume 1. https://juneau.org/wp-content/uploads/2019/02/JWMPVolume1FinalApril2016.pdf

[6] U.S. Army Corps of Engineers, 2007. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0), ERDC/EL TR-07-24. U.S. Army Corps of Engineers. https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/7608

[7] U.S. Army Corps of Engineers, 2023. 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. http://wetland-plants.usace.army.mil/

[8] eBird Basic Dataset. Version: EBD_relMar-2024. Cornell Lab of Ornithology, Ithaca, New York. Mar 2024.

[9] DOWL, 2024. Juneau Douglas North Croossing PEL, Natural Environment Screening GIS https://gis.dowl.com/portal/apps/instant/portfolio/index.html?appid=85cb7911192e4c7a94568f629f3aa9c0

[10] Cain, S., J Hodges, and E. Robinson-Wilson, 1988, Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK

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22. National Oceanic and Atmospheric Administration Fisheries Technical Report

Technical Report No. 11-03

Juvenile Salmonid presence in the Mendenhall River, Juneau, Alaska

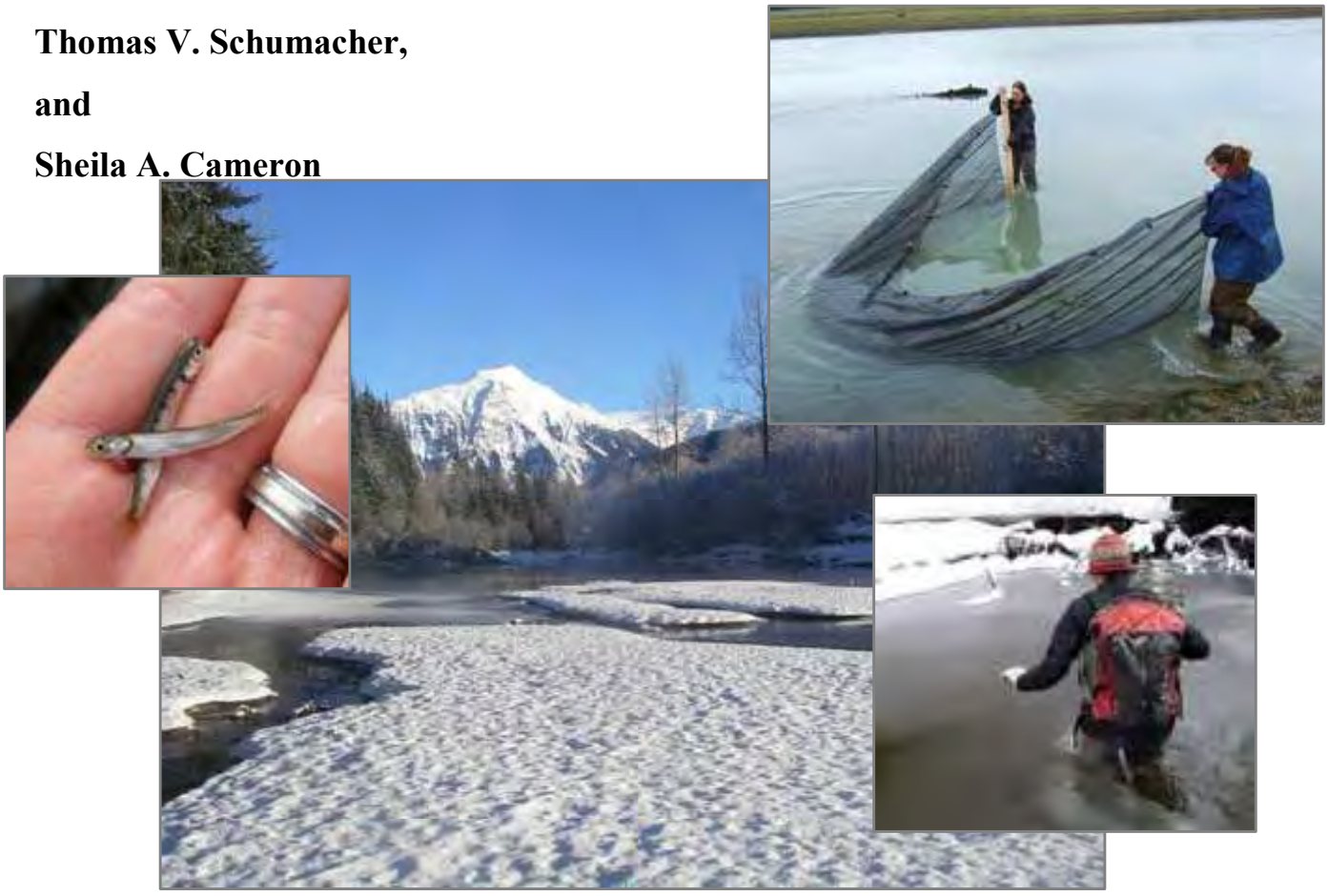
By

Katie A. Eaton,

Thomas V. Schumacher,

and

Sheila A. Cameron



May 2011

Alaska Department of Fish and Game **Division of Habitat**

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

TECHNICAL REPORT NO. 11-03

JUVENILE SALMONID PRESENCE IN THE MENDENHALL RIVER, JUNEAU, ALASKA

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ACKNOWLEDGMENTS

We would like to thank Jackie Timothy with the Division of Habitat, Alaska Department of Fish and Game (ADF&G) for securing funding for this project and providing support both logistically as well as in the field. Kate Kanouse, Kristen Dunlap, Kyle Moselle, Carl Schrader, Janet Hall-Schempf, Tess Quinn, and Kerry Howard, also with the Division of Habitat, were instrumental in completing the field sampling associated with this project. Grey Pendleton with the Division of Wildlife Conservation, ADF&G provided assistance with the statistical analysis of our data. We would like to thank Al Ott and Jackie Timothy with the Division of Habitat, for reviewing and editing this report.

ABSTRACT

The Alaska Department of Fish and Game, Division of Habitat has the statutory authority to permit activities that may impede fish passage and for activities that occur below ordinary high water in streams designated as being important to the spawning, rearing, or migration of anadromous fishes. The Mendenhall River has been designated as being important to anadomous fishes.

In 2007, the Division of Habitat initiated a systematic sampling effort to document fish use of the Mendenhall River. The Mendenhall River was divided into four reaches, with an additional reference reach in Montana Creek, a clear water tributary to the Mendenhall River. Each reach was minnow trapped for one 24-hour period during the winter, spring, summer, and for two separate periods in the fall during 2007 and 2008. The mouth of the Mendenhall was beach seined from mid-March through mid-June to identify salmonid outmigration timing. For juvenile salmonid minnow trap capture rates, the geometric mean was estimated across and within season using a generalized linear model. Juvenile salmonids were caught in all reaches of the Mendenhall River with the majority of salmonid captures occurring in Reach A, the upper most reach. The upper portions of the Mendenhall River support the largest number of rearing salmonids with lower reaches appearing to have lower value as rearing habitat. These findings support characterizing the lower reach of the Mendenhall River primarily as a migratory corridor for salmonids entering and leaving the system. Result from the beach seining effort support a mid-April through mid-June in-water work timing restriction on the Mendenhall River. The information gathered from this study will be used by the Division of Habitat to make permitting decisions on the Mendenhall River.

Key words: Mendenhall River, Montana Creek, Juneau, minnow trapping, beach seining, juvenile salmonid, rearing habitat, glacial

INTRODUCTION

Many of the important salmon producing rivers in southeastern Alaska and British Columbia are glacial or partially glacial in origin (Meehan and Siniff 1962, Eiler et al. 1992, Eiler 1995). The salmonid habitat provided by these rivers is often thought of as habitat patches used during fish migrations (Stanford and Ward 1992). In these systems, upper and lower river habitats serve different functions. Upriver habitats with suitable substrates and upwelling groundwater provide spawning habitats while lower-river areas with low gradients provide substantial rearing habitat (Murphy et al. 1989, Eiler et al. 1992).

The Mendenhall River is included in the Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (Catalog) as Stream No. 111-50-10500, and is cataloged for the presence of chum salmon *Oncorhynchus keta*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, sockeye salmon *O. nerka*, cutthroat trout *O. clarkia*, steelhead trout *O. mykiss*, and Dolly Varden char *Salvelinus malma* (Johnson and Klein 2010). Adult salmonids, which enter the river in late summer and fall, primarily use the lower habitats as a migration corridor as they return to spawn in clear water tributary and headwater streams. It has been estimated that as many as 15,000 adult salmon migrate up the river each year (Bethers et al. 1993). Juvenile salmonids outmigrate from clear water tributary and headwater streams during spring. Several species, including chum and pink salmon, outmigrate directly to salt water following emergence while coho and sockeye salmon, as well as anadromous cutthroat and steelhead trout, and Dolly Varden char may spend multiple years rearing in freshwater. Bethers et al. (1993) reported that the river provides a significant amount of rearing habitat for juvenile coho salmon and that Dolly Varden char could be found in glacial sloughs and near the mouths of clear water tributaries. Although eulachon *Thaleichthys pacificus* presence in the lower Mendenhall River during the spring has been reported (Bethers et al. 1993), the river is not listed as supporting eulachon in the Catalog (Johnson and Klein 2010).

The Mendenhall River flows about 8 km through the center of the Mendenhall Valley in Juneau, Alaska. It is a large glacial river which supports several salmonid species and multiple habitat types. The Mendenhall River headwaters are in undeveloped National Forest land surrounding Mendenhall Lake. The Mendenhall River then flows through increasingly dense residential, commercial, and light industrial development until reaching the Mendenhall Wetlands State Game Refuge. Development on the Mendenhall River includes three bridges, one on Glacier Highway, another on Mendenhall Loop Road, and a pedestrian bridge between the two. The east side of the river is heavily developed while the area immediately to the west of the river is protected by a largely undisturbed buffer area, dedicated by the City and Borough of Juneau as a green belt (Bucy 1994). The Mendenhall Wastewater Treatment Plant has an outfall and the City and Borough disposes of excess snow in the lower river.

There have been numerous efforts to control erosion along these residential and commercial sections of the river. Erosion control efforts range from unpermitted placement of junk vehicles to riprap to a single engineered log revetment. Inwater construction and bank stabilization projects associated with private residences and public infrastructure are commonly proposed activities.

The Alaska Department of Fish and Game (ADF&G), Division of Habitat (Habitat) has the statutory authority to permit activities that may impede fish passage (AS 16.05.841) and those below ordinary high water (AS 16.05.871) in specified waters such as the Mendenhall River. Several activities require review under Habitat's authorities including bank stabilization and in-water construction projects. Residential and public infrastructure projects are commonly proposed below the ordinary high water line of the Mendenhall. This study was conducted to provide data on specific habitats used by juvenile salmonids to make better decisions on permit actions.

OBJECTIVES

In 2007, Habitat initiated a systematic year-round effort to document use of the Mendenhall River by juvenile anadromous fish. The goals of this study were to (1) document the species present and the relative abundance of juvenile salmonid in each reach of the river and a reference reach in Montana Creek, and (2) verify outmigration periods for pink slamon *O. gorbuscha* and chum salmon *O. keta*. This work was funded by the Alaska Department of Natural Resources and ADF&G.

METHODS

STUDY AREA

The Mendenhall River in Juneau, Alaska, is a glacially influenced river running about 8 km from its source at Mendenhall Lake to tide water in Fritz Cove (Figure 1). Tidal influence extends about 4 km upriver from Fritz Cove to near the confluence with Montana Creek. The river drains a watershed of approximately 220.4 km^2 with elevations ranging from sea level to over 2,100 m (Jackson et al. 2006, Neal 2007). Mean annual precipitation in the Mendenhall basin is about 457 cm with peak precipitation occurring in the fall (Jones and Fahl 1994).

Nearly two-thirds of the upper Mendenhall basin is covered by the glaciers of the Juneau Ice Field which contributes to large seasonal variations in discharge (Neal 2007). Flows typically increase in late April and May, as warmer temperatures melt the snow and ice in the Juneau Ice Field, and remain high through September. Flows decline through the fall and winter as

temperatures drop and the ice field freezes. From 1965 through 2005, the mean annual discharge was 33.5 m^3/s at the Mendenhall Lake gauging station with a minimum monthly mean of 2.6 m^3/s in February and a maximum monthly mean of 95.4 m^3/s in August (Jackson et al. 2006).

As a glacial system, the Mendenhall River differs in temperature and turbidity from its clearwater tributaries, such as Montana Creek. In 2004, both water bodies reached annual low temperatures near 0°C in late January (Hood and Byers 2004). Water temperature increased with warmer weather in April. However, as runoff from the ice field increased in May, the temperature of the Mendenhall River declined from nearly 6°C in mid-May to 4°C in mid-June while the temperature of Montana Creek increased to about 7.5°C (Hood and Byers 2004). Turbidity in the Mendenhall River is higher than in Montana Creek, but the difference is most pronounced in summer and early fall during peak glacial melt. From December 2003 through June 2004, turbidity in the Mendenhall River averaged 75.2 NTU while turbidity in Montana Creek averaged 1.2 NTU (Hood and Byers 2004).

Sampling reaches were designated by dividing the river from the outlet of Mendenhall Lake to tidewater near Fritz Cove into 4 reaches, each about 2 km long. A reference reach was established in Montana Creek from the bridge on Back Loop Road to its confluence with the Mendenhall River, also about 2 km long.

Reach A was established from the outlet of Mendenhall Lake downstream to the Back Loop Road Bridge and included a large slough extending westward from the main channel. This reach is characterized by the presence of large boulders and a steeper average gradient than other reaches (Neal and Host 1999). The western bank is bordered by a seasonal U.S. Forest Service campground and low density residential development. The eastern bank is undeveloped.

Reach B was established from the Back Loop Road Bridge downstream to approximately 400 m above the confluence of Montana Creek. The upper 500 m of this reach, where the river cut through a terminal moraine, is the steepest on the river with a slope of 0.012. The slope declines in the lower section of Reach B remaining consistent to tidewater (Neal and Host 1999). The western bank has some low density residential development along the upper 600 m, but the remainder is undeveloped city park land. The eastern bank is entirely bounded by development including a school and residential neighborhoods.

Reach C was established from about 400 m upstream of the Montana Creek confluence downstream to the Brotherhood Bridge on Glacier Highway. The western bank is entirely undeveloped land, while the eastern bank has been developed for residential, recreational, and commercial uses. The majority of this reach is tidally influenced.

Reach D was established from the downstream side of Brotherhood Bridge to about 400 m below the Juneau Airport float pond. About half of the western bank has been developed for commercial and light industrial uses, while an estimated two-thirds of the eastern bank has been developed primarily for residential use. Reach D includes a sewage treatment plant and outfall, as well as the western end of the Juneau International Airport. The lower third of this reach is within the Mendenhall Wetlands State Game Refuge. This reach is tidally influenced.

Montana Creek is the largest tributary of the Mendenhall River with a watershed of approximately 40.1 km^2 (Neal and Host 1999). Mean annual flow for Montana Creek is 2.95 m^3/s and ranges from a mean monthly low of 1.19 m^3/s in January to a monthly high of 4.73 m^3/s in June (USGS 1972-1975, USGS 1976-1999). Montana Creek is sourced through groundwater

and surface runoff from largely undeveloped U.S. Forest Service and city park land. Montana Creek runs about 13 km from its headwaters in the Tongass National Forest through undeveloped land to its confluence with the Mendenhall River (Figure 1). The Montana Creek reference reach is low gradient with a meandering course and high accumulation of large coarse woody debris.

MINNOW TRAPPING

Twenty trap sites were established in each of the established reaches, 10 trap sites on each bank, with the exception of Reach B which only received 19 traps due to access issues. A large portion of the uplands within the reference reach in Montana Creek are privately owned. Access to the established trap sites in privately owned areas was accessed by wading across the creek. In times of high water, 6 of the 10 trap sites within the privately owned area were inaccessible. When access was unavailable, an additional 6 traps were placed opportunistically on the side of the creek with public access. Actual trap placement within established trap sites varied due to changes in water levels resulting from precipitation, tides, and seasonal runoff.

Each reach was trapped opportunistically for one 24-hour period during winter (December–February), spring (March–May), and summer (June–August), and for two separate 24-hour periods during Fall A (September) and Fall B (October). The fall trapping period was sampled twice because it was a time when it could be assured that captured juvenile salmonids were indeed rearing in the system (Appendix A). Trapping methods were based on the methods established in Magnus et al. (2006). Salmonids were captured using two-piece galvanized steel minnow traps (42×23 cm, 22 mm openings, 6.4 mm mesh; Aquatic Eco-Systems Apopka, FL[1]). Traps were baited with cured salmon eggs contained in a punctured or opened plastic bag (118 ml Whirl-Pak; Nasco, Fort Atkinson, WI[1]). During the 2008 field season, traps were weighted with stones to provide refuge for captured individuals and to keep traps from migrating down river. At each trap site the date and time were recorded as well as several habitat characteristics. Habitat characteristics were not standardized therefore they were not quantitatively evaluated.

Captured fish were transferred into water-filled buckets or plastic bags. Salmonids were identified to species using the key and descriptions in Pollard et al. (1997); length was recorded to the nearest mm. Nonsalmonids were identified to genus; length was not collected. Captured fish that were identified in the field were returned to the stream at the capture site. Individuals that were not identifiable in the field were taken to the lab for microscopic examination.

BEACH SEINING

A beach seine (2×6m, 0.6 cm mesh; Nylon Net Company Memphis, TN[1]) was used during low tide at the mouth of the river for weekly sampling of outmigrating pink and chum salmon from mid-March through mid-June. When water levels permitted crossing the river, both banks were sampled; when water levels prevented crossing, the accessible bank was sampled twice. The seine was held in the river perpendicular to the bank for 5 minutes. The seine was closed by sweeping the outer end upriver and back to the bank. Captured salmonids were identified using the key and description in Pollard et al. (1997) and the length was recorded to the nearest mm. Captures of nontarget species were recorded to genus in 2008; the length was not recorded. Captured fish that were identified in the field were returned to the stream at the trap site.

[1] Product names used in this publication are included for completeness but do not constitute product endorsement.

Individuals that were not identifiable in the field were taken to the lab for microscopic examination.

QUANTITATIVE ANALYSIS

The length of each captured salmonid was placed into one of three categories, less than 60 mm, 60 to 120 mm, and greater than 120 mm by species. Mean length was calculated for all captured salmonid species within trapping sessions. Assuming lengths were normally distributed, 95% confidence intervals were calculated around the mean length for each species during each trapping session.

The geometric mean was estimated for the juvenile salmonid catch rate for each reach across seasons as well as within seasons using a generalized linear model (Littell et al. 2006). The number of salmonids caught in each trap was modeled using a log link function, assuming a negative binomial distribution. The negative binomial distribution is appropriate for highly skewed data where there are a few large values but mostly small ones; the log link function is standard for a generalized linear model with negative binomial data (Littell et al. 2006). Geometric means are appropriate to represent skewed data because they are less influenced by extreme values and better summarize the bulk of the data. Means were calculated using SAS least-squares means which adjusts for other factors in the model (Littell et al. 2006). R^2_G, a generalized version of R^2, was calculated to describe the proportion of variability accounted for by the model (VerHoef 2003). Due to an unbalanced sample design, two sets of estimates were produced—one omitting all Fall B samples and the other including only Reach A and Montana Creek where there was Fall B data for both years. Geometric means were considered significant if the 95% confidence intervals did not overlap.

RESULTS

MINNOW TRAPPING

Across 10 trapping sessions, six species of salmonids were captured as well as several non-salmonid species. Ten trapping sessions were completed in each reach except B and C where, due to conflicts, a second session during fall 2008 was not completed. Results are reported as the number of fish caught and not CPUE since trapping effort was constant across all reaches. A total of 1,827 juvenile salmonids were captured in the Mendenhall River and Montana Creek (Table 1). Approximately 98% the captured salmonids were either coho salmon (60.3%) or Dolly Varden char (37.5%). Additional species captured include Chinook salmon *O. tshawytscha*, sockeye and pink salmon, and rainbow trout. Salmonid species that were not detected in either water body included chum salmon and cutthroat trout. Nonsalmonid captures included numerous sculpin species *Cottus* sp. and the occasional three-spined stickleback *Gasterosteus aculeatus*. The species of nonsalmonid captures were not consistently recorded; as a result, nonsalmonid capture results are grouped and not separated by species. Anecdotally, the majority of the 1,444 nonsalmonids captured appeared to be sculpins. Of the total nonsalmonid capture 53% were caught in Montana Creek (Table 1).

Over the course of the study, juvenile salmonids were caught in each of the reaches as well as in each of the trapping periods, although salmonids were not caught in each reach during each trapping period. The greatest number of salmonids were caught in Montana Creek (n=946) followed by Reach A (n=595), Reach B (n=154), Reach C (n=114), and lastly Reach D (n=18) (Table 1). In 7 of the 10 trapping periods, more salmonids were caught in Montana Creek than in

any of the other sampled reaches. However, during spring 2007 and 2008 and during Fall 2008 B the majority of salmonids were caught in Reach A (Figure 2). Salmonid captures in Reach B equaled or exceeded those in Reach A during 2007 and winter 2008 (Figure 2). Across reaches, the majority of salmonids were caught during summer (n=669) and early fall (n=427) (Figure 3).

Geometric means for the number of juvenile salmonids captured per trap in each reach across all trapping sessions were significantly different with Montana Creek having the highest catch rate followed by Reaches A, then B, and then C (Table 2). The model resulting from this analysis produced an R^2_G of 0.37. Reach D could not be included in this analysis due to the low sample size.

Geometric means for each reach within seasons were not consistently significantly different (Table 2, Figure 4). Mean catch rates in Montana Creek and Reach A were only significantly different during summer and early fall (Table 2, Figure 4). Mean catch rates in Reach B and C were only significantly different during early fall (Table 2, Figure 4). The model resulting from this analysis produced an R^2_G of 0.17, the inclusion of a variable for season did not improve the predictive ability of the model. Reach D could not be included in this analysis due to the low sample size.

Mean length with 95% confidence intervals were only evaluated for coho salmon and Dolly Varden char due to the low sample sizes for the other species captured. Mean lengths were not significantly different between seasons or species (Figure 5).

BEACH SEINING

Beach seine sampling in the mouth of the Mendenhall River occurred 13 times (24 sets) between March 13 and June 19, 2007 and 10 times (20 sets) between March 26 and June 10, 2008 (Table 3). Twenty five salmonids were caught in 2007 and 13 in 2008. All captured juvenile salmonids were between 25 and 40 mm in length. Pink salmon were caught from mid-April to early May and chum salmon were caught from late April until the end of trapping in mid-June. Additional salmonid captures included one Dolly Varden char and a sockeye salmon.

The most numerous nonsalmonid species caught in 2008 were krill *Euphausia* sp. and amphipods *Amphipoda sp*. Additional captures included sculpin, capelin *Mallotus villosus*, and one starry flounder *Platichthys stellatus* (Table 3). Eulachon were not captured during beach seining efforts.

DISCUSSION

Juvenile salmonids were caught in all reaches of the Mendenhall River. Significantly more fish were caught in Reach A than any of the other reaches during all seasons except winter 2008 where Reach B had equivalent captures and early fall 2008 where Reach B had more captures. Assuming that the capture rate was positively correlated with the quality of rearing habitat, we conclude that Reach A offered the best rearing habitat in the Mendenhall River. Across all seasons rearing habitat quality declined the closer the reach was to the mouth of the river with Reach D offering the lowest habitat value for rearing salmonids. Although not quantifiable with this study, the varying habitats available in each of the sampled reaches may have played a large role in the juvenile salmonids abundance. Anecdotally, Reach A had a greater habitat diversity and complexity than did other reaches including areas of slow current, coarse woody debris, and large boulders near the bank. The upper portion of Reach A included a large backwater slough and several small tributary streams where many fish were caught.

Based on the models generated, the number of salmonids caught in any given trap depended most on reach, with season having little explanatory value. In Montana Creek, the greatest total catch within seasons occurred consistently during the summer and early fall. However, the sampled reaches in the Mendenhall River did not exhibit a consistent pattern among seasons or years. In 2007, 575 juvenile salmonids were captured while in 2008, only 360 juvenile salmonids were caught despite similar trapping efforts. Year class strength may have influenced the capture totals.

More salmonids were caught in Montana Creek than in all of the Mendenhall River reaches combined. Anecdotally, the higher quality rearing habitats in Montana Creek results, in part, from generally warmer water temperatures, lower turbidity, an abundance of coarse woody debris, and the lack of development along its banks. Nevertheless, our findings also indicate that the mainstem of the Mendenhall River, especially Reach A, does provide quality rearing habitat and likely makes an important contribution toward the total number of salmonids produced by this watershed.

Approximately 98% of the total salmonid capture was either coho salmon or Dolly Varden char, although the proportion of coho salmon to Dolly Varden char differed between reaches. In Reach A, the proportions of both species were about equal. In Reach B and Montana Creek, a higher proportion of coho salmon were caught than Dolly Varden char. However, a higher proportion of Dolly Varden char were caught in the Reaches C (62%) and D (89%). These capture proportions may indicate that habitat quality for rearing coho salmon declines below Reach B.

The diversity of salmonid species caught also declined from Reach A to Reach D. In Reach A five species were caught, and we found a similar diversity in Montana Creek. In Reaches B and C four species were caught, while only two species were caught in Reach D. It is unclear why there were fewer fish with a lower diversity of species in Reach D when compared to the other reaches. The use of minnow traps biased sampling efforts against catching juvenile pink and chum salmon due to their small size and more limited seasonal presence in the river. In addition, minnow traps may have been ineffective for capturing sockeye salmon as they are not commonly attracted to egg baits. However, if significant numbers of those species were rearing in Reach D, they would have likely been more prevalent in the beach seine captures. One notable difference between Reach D and the rest of the river is that the entire reach is tidally influenced; this results in the intrusion of saltwater and widely fluctuating water levels. The tidal influence in Reach D may result in unfavorable rearing conditions for juvenile salmonids.

MANAGEMENT IMPLICATIONS

We documented that juvenile salmonids use the periphery of all of the Mendenhall River as rearing habitat, but that lower reaches appear to have lower value rearing habitat. These findings support characterizing Reach D primarily as a migratory corridor for salmonids entering and leaving the system with limited potential as rearing habitat. With this information in hand, Habitat may permit projects or techniques in this reach of the river that would be inappropriate in other reaches with higher value as rearing habitat. These findings support the use of fish-friendly bank revetments in the reaches with higher value as rearing habitat.

A total of six juvenile Chinook salmon were caught in Reaches A, B, and C as well as one Chinook salmon in Montana Creek. At the time of this study these water bodies were not cataloged as supporting Chinook salmon, but these findings indicated this species uses this

system for rearing. Habitat has nominated the Mendenhall River to include Chinook salmon rearing.

To avoid impacts to outmigrating juvenile salmonids Habitat commonly imposes inwater work timing restrictions on proposed projects. When possible, Habitat prefers to tailor timing windows based on data for specific water bodies. The earliest outmigrating salmonids caught in beach seine samples on the Mendenhall River was May 3 in 2007 and April 15 in 2008, while the latest capture was June 19, the last day sampled in 2007 and June 2 in 2008. The most abundant captures were on May 17 in 2007 (n=14) and April 22 in 2008 (n=4). These results support careful consideration of an inwater work timing restriction on the Mendenhall River. However, only 38 presumably outmigrating salmonids were caught over two years. Refining timing windows will require additional work, possibly employing different sampling techniques.

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LIST OF FIGURES

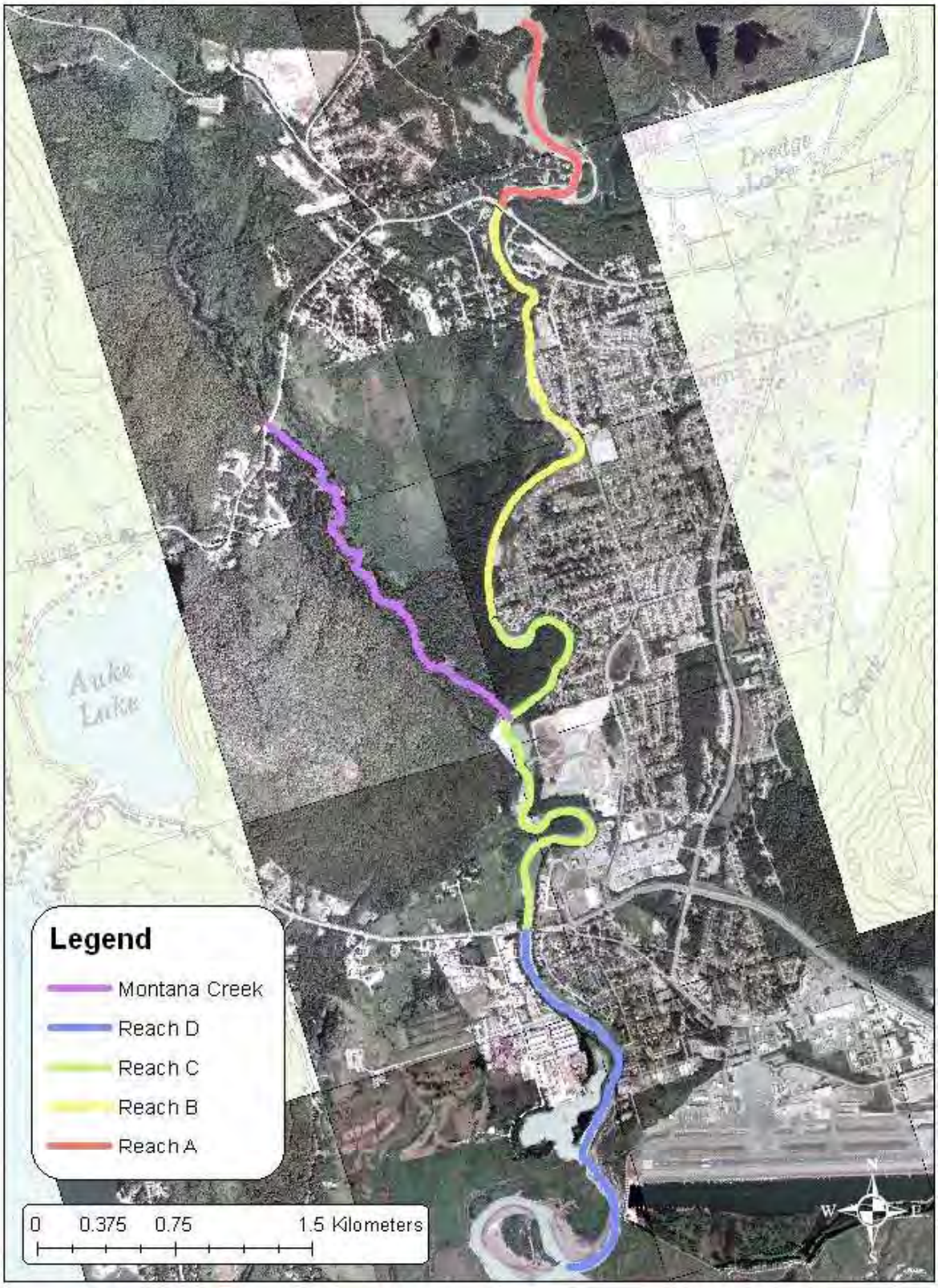


Figure 1.- Map of four reaches in the Mendenhall River and one in Montana Creek in Juneau, Alaska sampled for juvenile salmonid presence in 2007 and 2008.

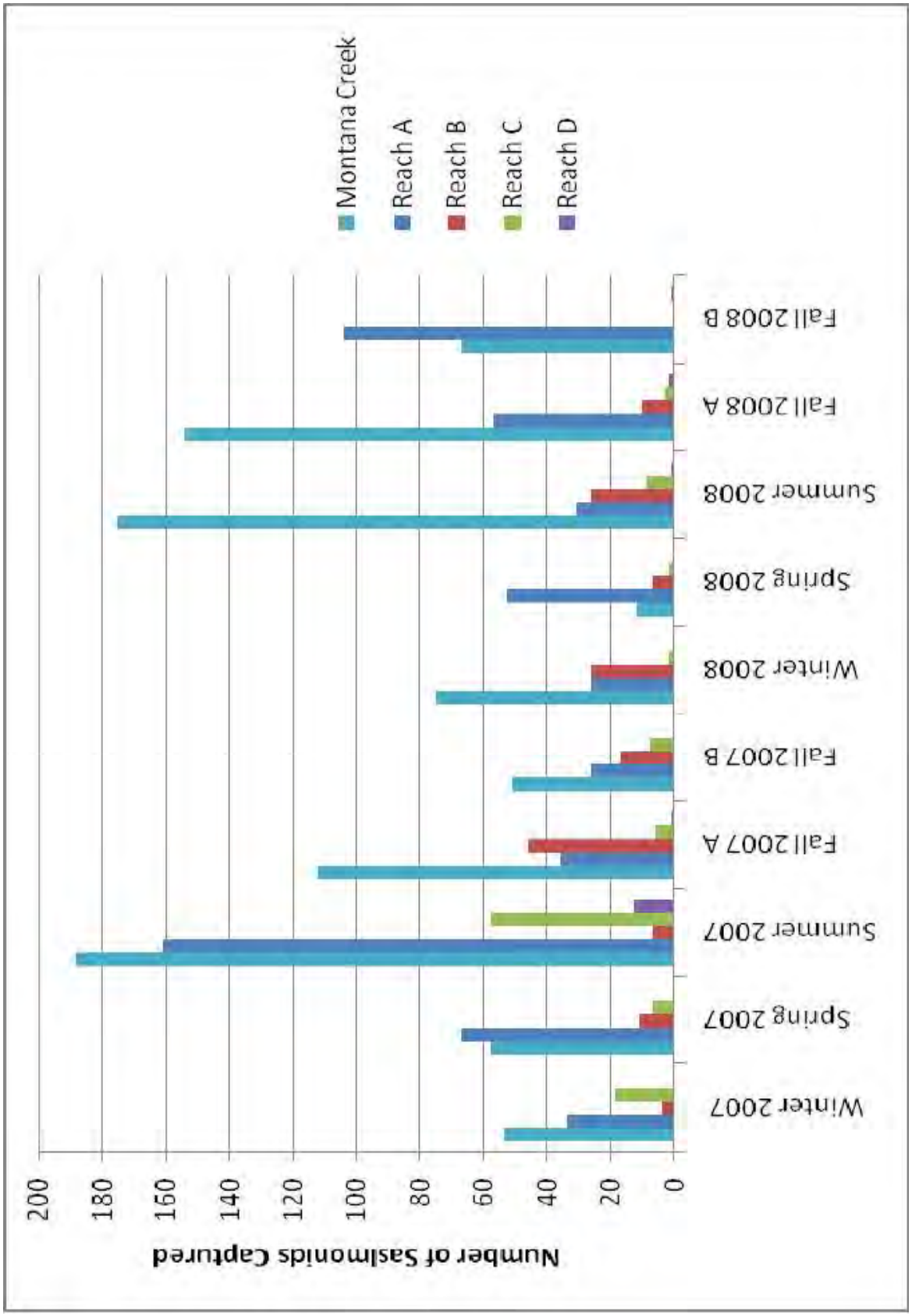


Figure 2.- Minnow trap salmonid captures in four reaches of the Mendenhall River and one in Montana Creek in Juneau, Alaska, during 2007 and 2008. Reaches B and C were not trapped during the Fall 2008 B trapping session.

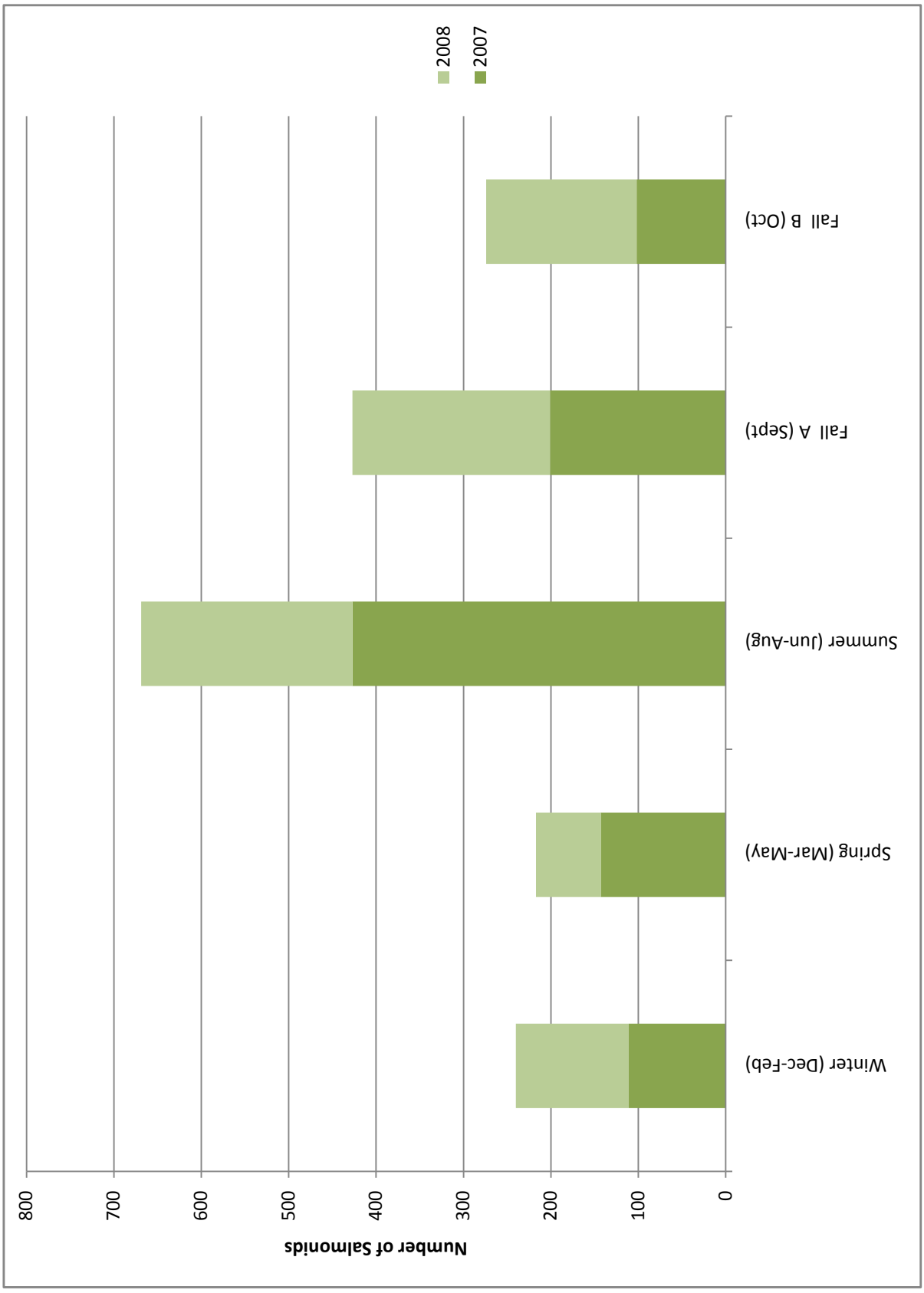


Figure 3.- Seasonal salmonid capture totals for the Mendenhall River and Montana Creek in Juneau, Alaska, during 2007 and 2008.

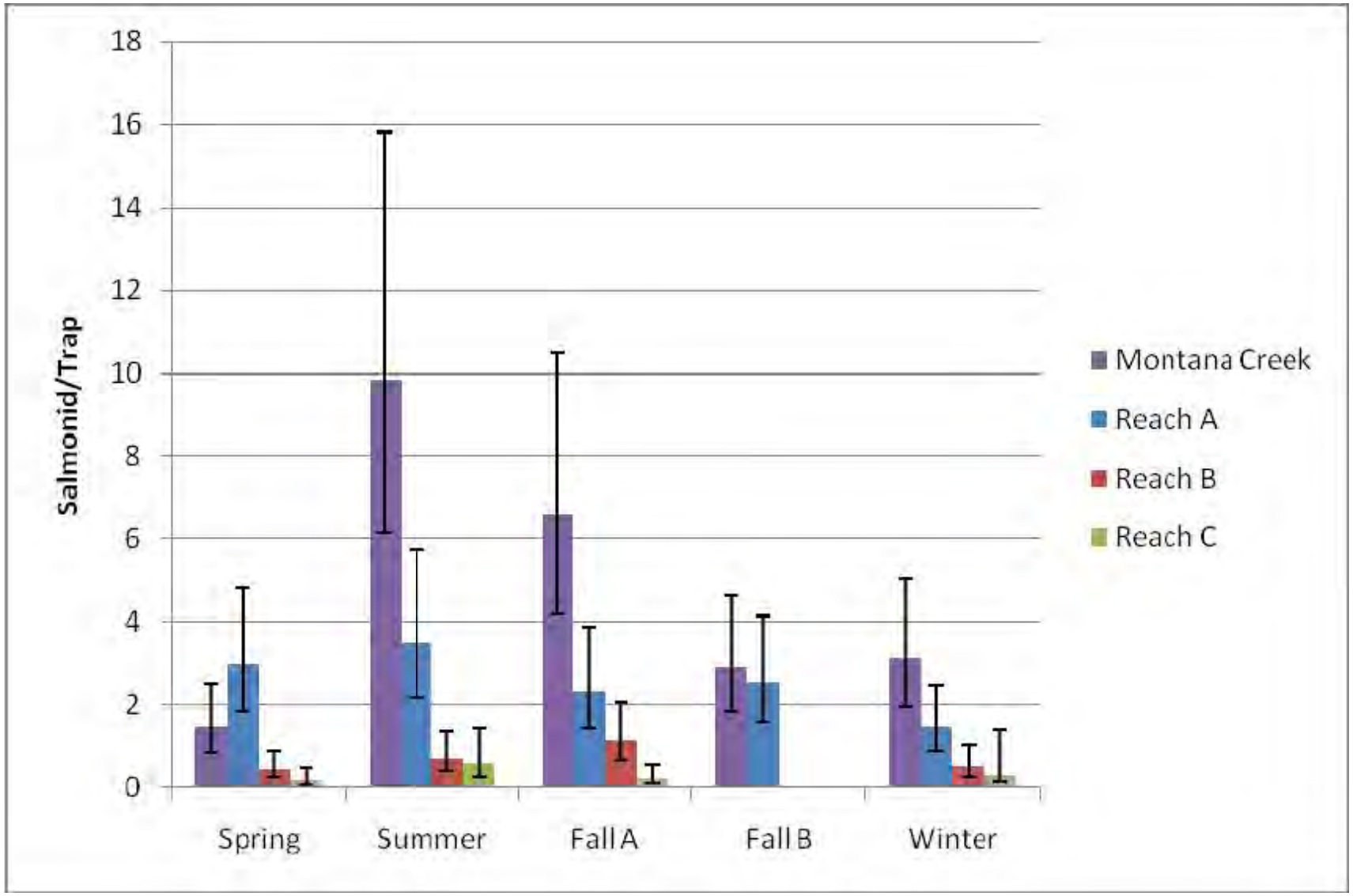


Figure 4.- Geometric mean number of salmonids caught per minnow trap in three reaches of the Mendenhall River and one in Montana Creek in Juneau, Alaska, during 2007 and 2008. Error bars represent 95% confidence intervals around each mean. Reach D was not included in this analysis due to small sample size.

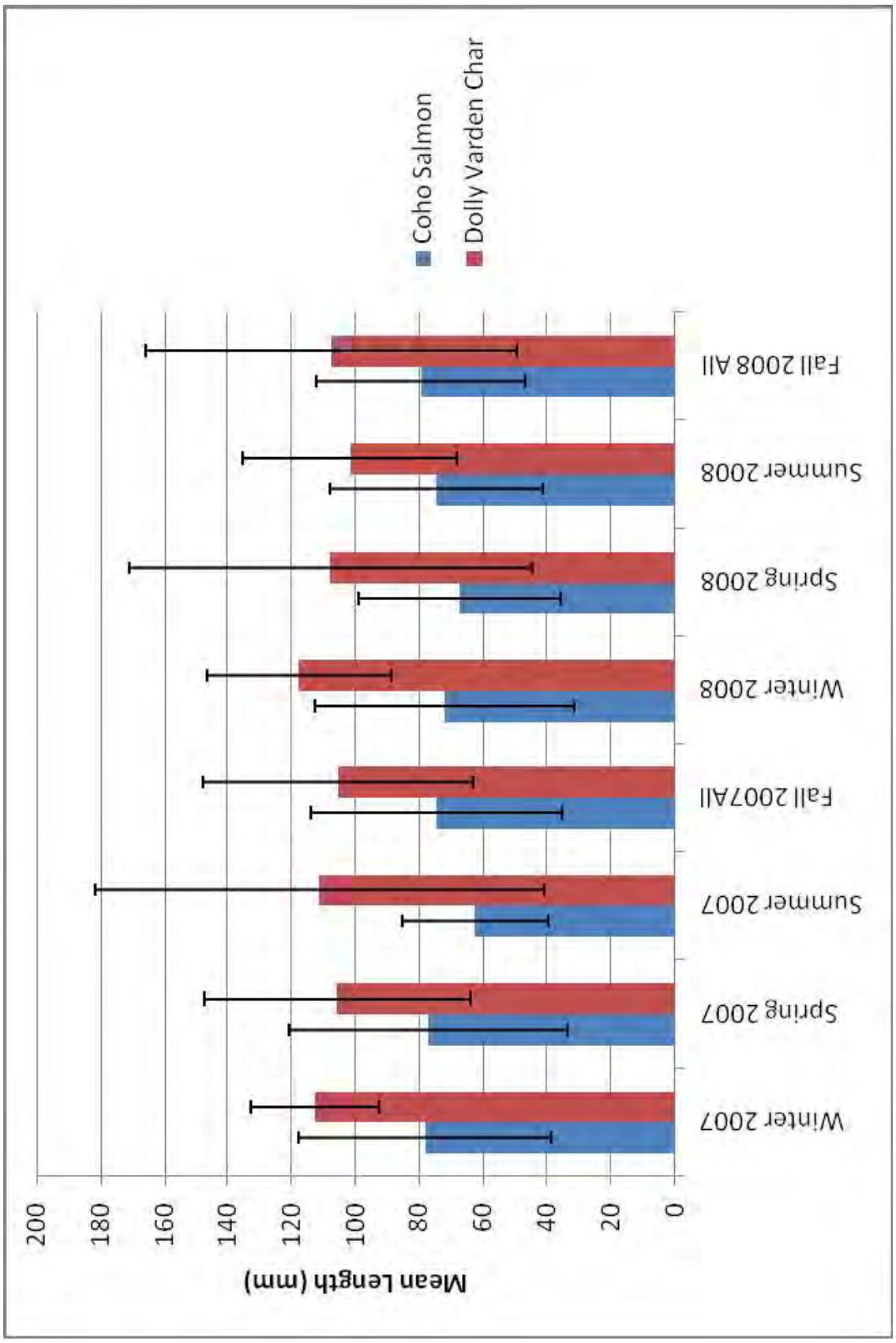


Figure 5.- Mean lengths of coho salmon and Dolly Varden char captured in the Mendenhall River and Montana Creek in Juneau, Alaska, during 2007 and 2008. Error bars represent 95% confidence intervals around each mean. Other species were not included in this analysis due to small sample size.

LIST OF TABLES

Table 1. Number and proportion of fish species caught in minnow traps in four reaches of the Mendenhall River and one in Montana Creek, Juneau, Alaska, in 2007 and 2008.

	Reach A		Reach B		Reach C		Reach D		Montana Creek		Total	
Species	n	(%)	n	(%)	n	%	n	%	n	%	n	%
Coho	286	(48.1)	90	(58.4)	40	(35.1)	2	(11.1)	683	(72.2)	1101	(60.3)
Dolly Varden	293	(49.2)	58	(37.7)	71	(62.3)	16	(88.9)	247	(26.1)	685	(37.5)
Chinook	3	(0.5)	1	(0.6)	2	(1.8)	0		1	(0.1)	7	(0.4)
Rainbow Trout	7	(1.2)	5	(3.2)	1	(0.9)	0		14	(1.5)	27	(1.5)
Pink	0		0		0		0		1	(0.1)	1	(0.1)
Sockeye	6	(1.0)	0		0		0		0		6	(0.3)
Total Salmonid	595	(32.6)	154	(8.4)	114	(6.2)	18	(1.0)	946	(51.8)	1827	
Other Species[a]	217	(15.0)	73	(5.1)	193	(13.4)	195	(13.5)	766	(53.0)	1444	
Total	812		227		307		213		1712		3271	

[a] Fish in "Other Species" category were almost entirely sculpin *Cottus* sp.

Table 2. Geometric mean number of juvenile salmonids caught per minnow trap session in the Mendenhall River and Montana Creek in Juneau, Alaska, in 2007 and 2008. Significant differences between reaches are indicated by different letters in the "Significant Difference" column. Reaches with the same letters in this column are not significantly different.

Trapping Sessions	Reach	Mean	L 95% CI	U 95% CI	Significant Difference
All Seasons[a]	Reach A	2.462	1.925	3.149	W
	Reach B	0.672	0.488	0.925	X
	Reach C	0.301	0.196	0.464	Y
	Montana Cr	4.151	3.253	5.298	Z
Spring	Reach A	2.979	1.845	4.810	W
	Reach B	0.461	0.239	0.890	X
	Reach C	0.187	0.075	0.461	X
	Montana Cr	1.461	0.855	2.498	W
Summer	Reach A	3.521	2.171	5.711	W
	Reach B	0.729	0.391	1.359	X
	Reach C	0.607	0.260	1.416	X
	Montana Cr	9.836	6.122	15.804	Y
Fall A	Reach A	2.355	1.436	3.864	W
	Reach B	1.159	0.652	2.059	W
	Reach C	0.237	0.102	0.548	X
	Montana Cr	6.617	4.177	10.482	Y
Fall B	Reach A	2.549	1.577	4.121	W
	Montana Cr	2.900	1.821	4.619	W
Winter	Reach A	1.486	0.891	2.480	W, X
	Reach B	0.523	0.261	1.045	W
	Reach C	0.308	0.131	1.382	W
	Montana Cr	3.122	1.936	5.034	X

[a] Fall B does not included analysis for reaches B and C due to a lack of trap effort during the 2008 season.

Table 3. Summary of species captured in a beach seine at the mouth of the Mendenhall River in Juneau, Alaska, during the spring of 2007 and 2008.

		Species Captured					
		Oncorhynchus gorbuscha	*Oncorhynchus keta*	*Cottus* sp.	*Pandalus* sp.	*Mallotus villosus*	Amphipoda sp.
Date	No. Sets						
2007							
Mar. 13	1						
Mar. 28	1						
2-Apr	2						
9-Apr	2						
16-Apr	2						
3-May	2	1					
7-May	2		5				
17-May	2		14				
23-May	2		3				
1-Jun	2						
4-Jun	2		1				
15-Jun	2						
19-Jun	2		1				
Subtotal	24	1	24				
2008[a]							
Mar. 26	2				70		
1-Apr	2			1	49	6	
7-Apr	2			2	17		
15-Apr	1	3			50	1	
22-Apr	2	4			160		
29-Apr	2	1	2		55	1	
15-May	1						1000
21-May	2		1	1			
28-May	2					1	80
5-Jun	2		2				20
10-Jun	2						1
Subtotal	20	8	5	4	401	9	1101
Total	44	9	29	4	401	9	1101

[a] In 2008 captures also included one starry flounder *Platichthys stellatus* on April 29, one juvenile sockeye salmon on June 5, and one Dolly Varden char on June 10.

APPENDIX

Appendix A. Juvenile salmonid minnow trapping dates on the Mendenhall River and Montana Creek, Juneau, Alaska, in 2007 and 2008.

Reach	Session	Dates Trapped	Session	Dates Trapped
A	Winter 2007	Feb. 5-6	Winter 2008	Feb. 26-27
B		Feb. 26-27		Jan. 23-24
C		Feb. 7-8		Jan. 15-16
D		Feb. 13-14		Feb. 14-15
Montana		Feb. 8-9		Feb. 27-28
A	Spring 2007	May 3-4	Spring 2008	April 21-22
B		April 17-18		April 2-3
C		April 10-11		May 21-22
D		April 2-3		April 8-9
Montana		May 17-18		May 15-16
A	Summer 2007	June 28-29	Summer 2008	July 15-16
B		Aug. 16-17		Aug. 5-6
C		July 30-31		Aug. 20-21
D		July 2-3		July 21-22
Montana		July 16-17		Aug. 27-28
A	Fall 2007 A	Sept. 10-11	Fall 2008 A	Sept. 3-4
B		Sept. 17-18		Sept. 24-25
C		Sept. 26-27		Sept. 8-9
D		Sept. 6-7		Sept. 17-18
Montana		Sept. 24-25		Sept. 29-30
A	Fall 2007 B	Oct. 11-12	Fall 2008 [a]	Oct. 9-10
B		Nov. 7-8		
C		Nov. 13-14		
D		Nov. 28-29		Oct. 6-7
Montana		Oct. 24-25		Oct. 14-15

[a] Reaches B and C were not trapped during this session.

23. North Douglas Neighborhood Association

DATE	ITEMS	PAGE
8/19/2022	Comments on Draft Purpose and Need Statement – PEL Study	570
1/31/2023	Comments on PEL Study Preliminary Alternatives and Screening Criteria	575
3/20/2023	Comments on PEL Study Level I Screening Results	577
10/4/2023	Michael Stanley Crossing Ideas at Salmon Creek	579
4/3/2024	Comment on PEL Level II Screening Results	583

From:	Morgan McCammon
To:	Michael Stanley; PUB-JDNorthCrossing
Cc:	"Cinda Stanek/Fred Hiltner"; "Kristie Swanson"; "jim powell" [redacted]; "Karen Pallenberg"; "Barb Mecum"; "Margo Waring" [redacted] "DKM Personal"; "Ronald Berg"; "Matthew Culbreth"; "Merry Ellefson / Wayne Carnes"; "Philip Pallenberg"; "Jack Poulson"
Subject:	RE: [EXT] NDNA Comments on PEL Purpose and Need Statement
Date:	Friday, August 19, 2022 7:59:38 AM

Good morning Mr. Stanley,

Thank you for providing input. I will share this with the team.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Michael Stanley <[redacted]
Sent: Friday, August 19, 2022 7:35 AM
To: Morgan McCammon <[redacted]; PUB-JDNorthCrossing <JDNorthCrossing@DOWL.com>
Cc: 'Cinda Stanek/Fred Hiltner' [redacted]; 'Kristie Swanson' <[redacted]; 'jim powell' [redacted]; [redacted]; 'Karen Pallenberg' [redacted]; 'Barb Mecum' [redacted]; 'Margo Waring' [redacted]; [redacted]; 'DKM Personal' [redacted]; 'Ronald Berg' [redacted]; 'Matthew Culbreth' [redacted]; 'Merry Ellefson / Wayne Carnes' [redacted]; 'Philip Pallenberg' [redacted]; 'Jack Poulson' [redacted]
Subject: [EXT] NDNA Comments on PEL Purpose and Need Statement

Some people who received this message don't often get email from [redacted] Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Ms. McCammon and the JD North Crossing project team:

Attached please find the comments of the North Douglas Neighborhood Association on the draft purpose and need statement that you circulated last week as part of the PEL Study. As indicated therein, NDNA, through its Second Crossing Committee, would welcome an opportunity to meet with you to discuss the PEL Study and issues identified in our comments concerning the identification of crossing alternatives. Please advise if you have any questions regarding these comments.

Mike Stanley, Chair
NDNA Second Crossing Committee

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON DRAFT PURPOSE AND NEED STATEMENT – PEL STUDY

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the draft JD North Crossing PEL Study Purpose and Need Statement, and has the following comments.

As an initial matter, NDNA encourages DOWL and DOTPF to review the Joint Statement of Mendenhall Wetlands Stakeholder Groups on the North Douglas Crossing Project, which was developed in 2007 in response to the Sheinberg Report. (This statement is appended to these comments.) We previously sent this statement to you, along with other documents prepared by our committee, and believe that many of the concerns expressed are germane to the PEL Study and the draft purpose and need statement.

NDNA was actively involved in prior efforts undertaken to identify a location for a second crossing of Gastineau Channel north of the existing bridge, in particular the studies prepared in 2005 for DOTPF by HDR Alaska, Inc., and in 2007 by Sheinberg Associates. As indicated at that time, based on the results of a survey NDNA conducted of all North Douglas property owners, which demonstrated a wide diversity of views, we did not take a position whether a crossing should be constructed and, if so, where. NDNA instead emphasized that as the neighborhood that will be most directly affected by a crossing, the CBJ should commit to an area planning process for North Douglas under the framework of its comprehensive plan. This request was endorsed in the Sheinberg Report but no further progress has been made toward that end. NDNA reiterates its position regarding the need for a North Douglas area planning process.

Consistent with that position, NDNA recommends that the PEL purpose and need statement be amended to add as an "additional goal" that any identified crossing alternatives should avoid/minimize/mitigate adverse impacts on the North Douglas neighborhood. This is the same standard the need statement articulates for impacts on the natural environment (in the third bullet point) but should be stated separately for impacts to our neighborhood. We further contend that it will be necessary for DOWL and DOTPF to engage directly with NDNA and other North Douglas groups (e.g., Bonnie Brae Neighborhood Association and residents of Bayview and beyond) in the process of identifying alternative locations for a crossing.

NDNA also believes that the "additional goal" relating to the natural environment should specifically refer to the Mendenhall Wetlands State Game Refuge. Both state and federal law impose significant restrictions on running transportation corridors through wildlife refuges and similar protected lands (commonly called Section 4(f) properties), and the need to "avoid/minimize/mitigate" adverse impacts to the Refuge must be thoroughly addressed in the PEL study process.

The “additional goal” relating to the natural environment should also be expanded in two other respects (1) to recognize the potential impacts of climate change and address how those impacts relate to the stated need for a north crossing, and (2) to encourage comprehensive studies of the wildlife and fishery resources of the upper Fritz Cove area, including the estuarine and nearshore environment of the Mendenhall River delta, Entrance Point, and the waters between Spuhn Island and North Douglas.

Finally, we strongly encourage that the purpose and need statement should reflect a commitment by DOWL and DOTPF of full transparency in the PEL study. This means a thorough presentation of information and data on the cost of a crossing; a detailed analysis of how a crossing would tie in to the North Douglas Highway, including how many properties would be displaced at the terminus; and how traffic in that area and all along the highway would be affected. This information should be made public ***before*** any crossing alternatives are identified for further study in a NEPA process.

NDNA appreciates the opportunity to comment on the draft purpose and need statement, and looks forward to working with DOWL and DOTPF in the PEL study process.

JOINT STATEMENT OF MENDENHALL WETLANDS STAKEHOLDER GROUPS ON THE NORTH DOUGLAS CROSSING PROJECT

The undersigned stakeholder groups represent individuals who use or have a direct interest in the Mendenhall Wetlands State Game Refuge (MWSGR). We join in this statement regarding the North Douglas crossing project and the current effort to identify a community preferred alternative for a crossing corridor.

The report of Sheinberg Associates (April 2007) culminates a several month process of gathering information and data concerning a North Douglas crossing. We commend the project team for its efforts in seeking comment from various stakeholder groups and individuals. The report compiles a substantial amount of information that is of value to the City and Borough of Juneau and its citizens as they consider this project. In particular, the report identifies three primary concerns the public has about the project: (1) impact on the MWSGR; (2) costs of construction; and (3) impacts to airport operations. With these in mind, we agree on the following points:

1. The report states assumptions about which crossing corridor will have the least environmental impact on the MWSGR. Until an EIS is completed, however, the public will not have a true understanding of the environmental impacts associated with various crossing alternatives. For instance, if a demonstration is made that a crossing must traverse the MWSGR because no feasible alternative exists – a showing that has not been made to date – we believe it will be necessary for such a crossing to be a structure-supported roadway, not a fill embankment. An EIS that analyzes all feasible alternatives should be completed ***before*** a preferred crossing corridor is identified.

2. The report surveyed public opinion using cost figures that do not reflect the true cost of a crossing project. The full cost of a crossing must take into account (1) the cost of a structure-supported roadway; (2) costs associated with improvements that will be necessary to Egan Drive, *e.g.*, separated-grade intersections; and (3) costs that may be associated with connecting the crossing to a bench road on North Douglas. Without a full understanding of ***all*** the costs associated with the crossing, the CBJ and the public are not in a position to make a true evaluation of which corridor alternative is the most affordable and represents the best value.

3. According to the Project Summary Report (May 2005), at sec. 9.6.1, a crossing at Salmon Creek (1) avoids the MWSGR; (2) is the shortest crossing; (3) is the least costly "all structure" alternative; (4) diverts traffic from the existing Douglas Bridge; and (5) would have "[m]inimal environmental impacts compared to other options." A crossing at Salmon Creek would serve identified project objectives of improved travel access between the Juneau mainland and Douglas Island, redundancy, and access to emergency services. A crossing at Salmon Creek would have the least impact on airport operations. Given public concerns regarding this project, in particular, impacts to MWSGR and project costs, a crossing alternative at Salmon Creek must be given serious consideration by the CBJ. The process to identify a community preferred alternative did not include the Salmon Creek alternative, which was a mistake.

Based on the foregoing, we believe it is premature to identify a crossing corridor now. We urge the Assembly not to act on the recommendation for stating a preference for a crossing at Vanderbilt Hill at this time. The Assembly should instead (1) move forward promptly to promote completion of an EIS that analyzes all reasonable alternatives; (2) refine the estimates of project costs to include all associated costs; and (3) take a hard look at the Salmon Creek alternative.

We do not oppose a North Douglas crossing. But if such a project is to be built, it must be done right. The decision to identify a crossing corridor must be based on a full understanding of the environmental impacts of the project and real comparisons of project costs. The current and future CBJ public will be well-served by a process that provides a comprehensive understanding of all aspects of this project and the merits of the various alternatives.

Steve J. Zmu BOARD MEMBER Date: 4/26/07
Juneau Audubon Society

Chair Date: 7/25/07
Mendenhall Refuge Citizens Advisory Group

PRESIDENT Date: 7/26/07
North Douglas Neighborhood Association

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
PRELIMINARY ALTERNATIVES AND SCREENING CRITERIA

JANUARY 31, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the preliminary alternatives for a second crossing between the mainland and Douglas Island, and the technical memorandum outlining screening criteria, and has the following comments:

1. Our committee commends the study team for including mention of a bench road as a concept that should be evaluated. *See* Summary of the Stakeholder Advisory Committee Meeting 2 (November 17, 2022). We understand that a bench road is not directly part of the PEL study of crossing alternatives but would be a separate, standalone project. The study team recognizes, however, that concerns regarding traffic on the North Douglas Highway, particularly regarding safety and capacity, are significant. We therefore recommend that the selection criteria be revised to include the potential for connection to a bench road as a factor that should be considered in evaluating the crossing alternatives.

This does not equate to endorsement of a bench road. Our prior survey of North Douglas homeowners (the results of which we previously provided to the study team) indicated a split of opinion on support for a bench road, 60 % in favor and 30 % opposed. But we do believe such a road – which would function similar to the Auke Rec/Lena bypass highway – should be reflected in the analysis.

We further understand that DOWL is in the process of completing a traffic study for the North Douglas Highway, and look forward to seeing the results of that work. Our committee continues to believe that a second crossing of Gastineau Channel, along with attendant development on North Douglas, will lead to a substantial increase in traffic along the highway, which is a major concern for NDNA.

2. As the committee has previously expressed to the study team, NDNA has for 20 plus years been requesting the CBJ to undertake an area planning process for North Douglas, much like it has done for other areas in Juneau. This is not something within the scope of the PEL study or for which DOWL has any responsibility; rather, it is a process within the authority of the CBJ and its planning department. Our committee has renewed discussions about an area planning process for North Douglas with Assembly members and CBJ planning staff, but have been advised that their next order of business is to review and revise the overall CBJ comprehensive plan before committing to another area-specific plan. Obviously, that process, if it were to occur, would take place after identification of a preferred crossing alternative through

the PEL study. This sequence is unfortunate, in our view, because a North Douglas Area Plan might well inform decision-making related to a crossing, including whether a second crossing is even needed.

For instance, the purpose and need statement lists as an additional goal of a second crossing "creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What if an area-specific planning process for North Douglas leads to a conclusion that this goal is not realistic? That any housing developed on the west side of Douglas Island is unlikely to be "affordable," or that there is little commercial interest in establishing a port in the vicinity of Hilda Creek. Wouldn't it be better to know that before a crossing alternative is selected?

3. In reviewing the descriptions of the various alternatives, we noted a difference in wording that could impact how the alternatives will be analyzed. All but two of the descriptions of the alternatives includes some recognition of effects on North Douglas homeowners in the immediate vicinity of the crossing location. For example, for the Mendenhall Penninsula location it says that impacts to existing residential homeowners will be a key consideration. For the North Airport location, it says there would be exploration of alignment alternatives that reduce impact to residential properties in Douglas Island. And for Vanderbilt, Twin Lakes, Salmon Creek and Eagle Creek there is mention of the need for right-of-way acquisition.

The description of the Sunny Point and Twin lakes alternatives is different, however. For Sunny Point, it says that there is an opportunity to connect to North Douglas Highway on property owned by CBJ. And for Twin Lakes it says that there is space to connect to North Douglas Highway. Thus for these two alternatives, there is no mention of either a need to consider an alignment that reduces impact to residential properties or a need for right of way acquisition. Our committee recommends that the descriptions of the various alternatives should reference the same list of criteria that will be used for analysis.

4. Prior studies of a second crossing (*e.g.,* the Project Development Summary Report (HDR Alaska, Inc., May 2005, and North Douglas Crossing Public Involvement Project (Sheinberg, April 2007)) evaluated the various crossing alternatives in part based on the nature of the crossing – embankment with a fixed span or structure-supported roadway. In other words, a filled causeway with a bridge over the main channel versus a crossing built on pilings. The differences between the two are significant in terms of environmental impacts and cost. The screeing criteria do not appear to account for this difference, and application of those criteria could yield very different conclusions depending on how a crossing was constructed. We encourage the study team to provide more clarity on this point.

NDNA appreciates the opportunity to comment on the preliminary alternative and selection criteria, and looks forward to continuing to work with DOWL and DOTPF in the PEL study process.

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
LEVEL I SCREENING RESULTS

MARCH 20, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the Level I Screening Results presented in a technical memorandum dated March 2, 2023, and also participated in the Technical and Stakeholder Advisory Committee meeting on March 6, 2023, and has the following comments on the screening results and issues that the PEL study team will be considering at Level II Screening.

The PEL study team has recommended that only five of the preliminary alternatives advance for further detailed development – West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek. Consistent with our prior comments (and also with comments we made during the last round of second crossing review, in 2005-07), NDNA does not take a position on which of these alternatives is preferable or that best addresses our concerns about impacts to the North Douglas area and our neighborhood. But we want to make several points regarding how these alternatives should be evaluated.

1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.

2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.

3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.

4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.

5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.

Thank you for considering these comments.

From: Steven Noble
To: Michael Stanley; Morgan McCammon
Subject: Re: [EXT] Salmon Creek Schematics
Date: Wednesday, October 4, 2023 3:56:42 PM

Michael

Thanks so much for giving us your ideas at this intersection. I appreciate it. We will compare it to some of the ideas that our team has been coming up with him see if it spurs any new concepts.

Steve

Steve Noble PE
DOWL

From: Michael Stanley [redacted]>
Sent: Wednesday, October 4, 2023 2:21:58 PM
To: Morgan McCammon [redacted]; Steven Noble <[redacted]>
Subject: [EXT] Salmon Creek Schematics

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Morgan and Steve,

Attached are a couple of schematics for the idea I mentioned about an overpass that would cross above Egan Drive from the hospital entrance, then across the DOT parking lot, and then across Gastineau Channel. (Where the crossing would land on the island side is a separate issue.) One is from a copy of the aerial photo you provided; the other is a photo I took at ground level at the turn-off into the Salmon Creek powerhouse. These are very rough but I hope you get the concept. The idea occurred to me as I was thinking about your comments regarding the difficulty of tying a crossing directly into the Salmon Creek intersection. An overpass that started at the elevation of the hospital entrance road, and then went directly across, would seem to avoid many of the problems you identified: the crossing would be high enough to avoid interfering with barge traffic; overpass abutments could be located near the hospital drive entrance and in the DOT parking lot, which I presume would avoid the need for taking any private property or buildings; and such a crossing would be entirely outside the Mendenhall Wetlands State Game Refuge and the habitat at the mouth of Salmon Creek. And I see other possible advantages: much better access to the hospital from Egan northbound, directly up an exit ramp, and a straight shot for traffic coming from North Douglas directly into the hospital, without having to negotiate the intersection light and multiple turns. The trickiest parts of this idea are the on and off ramps. An exit ramp southbound on Egan up to the overpass, just past the light, could compromise the merge lane bearing south out of Channel Drive; an entrance ramp down from the hospital entrance back to Egan would have to tie in somehow, while still leaving a way to turn right off Egan at the light; and a ramp down from the overpass for traffic coming south from North Douglas would also have to tie back into Egan. I assume, however, that traffic/highway engineers (which I am definitely not!) could wrestle with these issues. Whether this concept has any merit I will leave to you and DOT to judge, but I at least

wanted to convey the idea for your review.

One caveat: although I represent North Douglas Neighborhood Association on the PEL stakeholder advisory committee, this idea is mine alone and should not be considered the position of our Second Crossing Committee. Thank you.

Mike Stanley



From: Morgan McCammon
To: Michael Stanley; PUB-JDNorthCrossing
Cc: [redacted]
Subject: RE: [EXT] NDNA Comments on Level II Screening Results
Date: Wednesday, April 3, 2024 3:32:20 PM

Good afternoon, Mr. Stanley,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Michael Stanley <[redacted]>
Sent: Wednesday, April 3, 2024 8:49 AM
To: Morgan McCammon <[redacted]com>; PUB-JDNorthCrossing <[redacted]>
Cc: [redacted]
Subject: [EXT] NDNA Comments on Level II Screening Results

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Ms. McCammon and JD North Crossing Study Team,

Attached please find the comments of the North Douglas Neighborhood Association on the PEL Level II screening results and scoring tables. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you.

Mike Stanley
Chair, Second Crossing Committee
NDNA

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
P.O. Box 240303, Douglas Alaska 99824
www.northdouglasneighborhoodassociation.com

COMMENT ON PEL LEVEL II SCREENING RESULTS

The North Douglas Neighborhood Association (NDNA) and its Second Crossing Committee submit the following comments on the PEL Level II Screening Results, reflected in the draft scoring tables that were released by DOWL on March 1 and presented to the PEL stakeholder advisory and technical committees on March 7. NDNA representatives attended the stakeholder meeting and also participated in a subsequent discussion with members of the PEL study team as a follow-up to questions raised at that meeting. A second crossing from the mainland to Douglas Island, north of the existing bridge, will transform and have lasting impacts on our neighborhood, and we appreciate the efforts by DOWL to involve NDNA in the process.

I. General Statement

The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward.

The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.

We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.

We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.

II. Specific Concerns

The comments in this section generally track the criteria as outlined in the Level II screening results overview.

A. Purpose and Need

As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.

Salmon Creek scores +1 point for transportation infrastructure resilience whereas the other options all score +2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.

All of the alternatives score equally for decreasing traffic on the existing bridge, at +1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.

Twin Lakes and Salmon Creek score +1 for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure..." Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.

B. Additional Goals

All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.

The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 – meaning no adverse impacts – which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.

C. Environmental Considerations

Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to "directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing – including air and noise pollution – were among those considered in the evaluation of crossing locations.

Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.

All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the

alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.

The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.

D. Social Considerations

The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.

One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.

E. Housing and Economic Considerations

These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.

F. Safety

The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.

More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.

The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road:

> [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

The Level II screening analysis failed to pay heed to this request.

G. Right of Way

The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.

H. Public Support

The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory

committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a formal survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.

III. Conclusion

NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas – much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau – but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.

We appreciate the opportunity to comment on the Level II screening results and look forward to remaining involved in the consideration of a crossing project.

Date: April 2, 2024

Ellen Ferguson, President
North Douglas Neighborhood Association

Mike Stanley, Chair
NDNA Second Crossing Committee

24. Roger Ramsey

From:	Morgan McCammon
To:	Roger Ramsey; PUB-JDNorthCrossing
Subject:	RE: [EXT] Second crossing
Date:	Monday, April 25, 2022 10:55:34 AM

Good morning,

Thank you for your comments on the Juneau Douglas North Crossing PEL Study. Alternative crossing locations have not yet been selected. I have shared your comments with the project team and added you to the project email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study.

Virtual Open House No. 1
Wednesday, May 11, 2022, 4:30-6:30 pm
Zoom (www.zoom.com)
Meeting ID: 872 5158 1127
Meeting Passcode: 460799
Click here to directly link to the Zoom meeting

Visit the website www.JDNorthCrossing.com for further information on the PEL Study.

Thank you,
Morgan

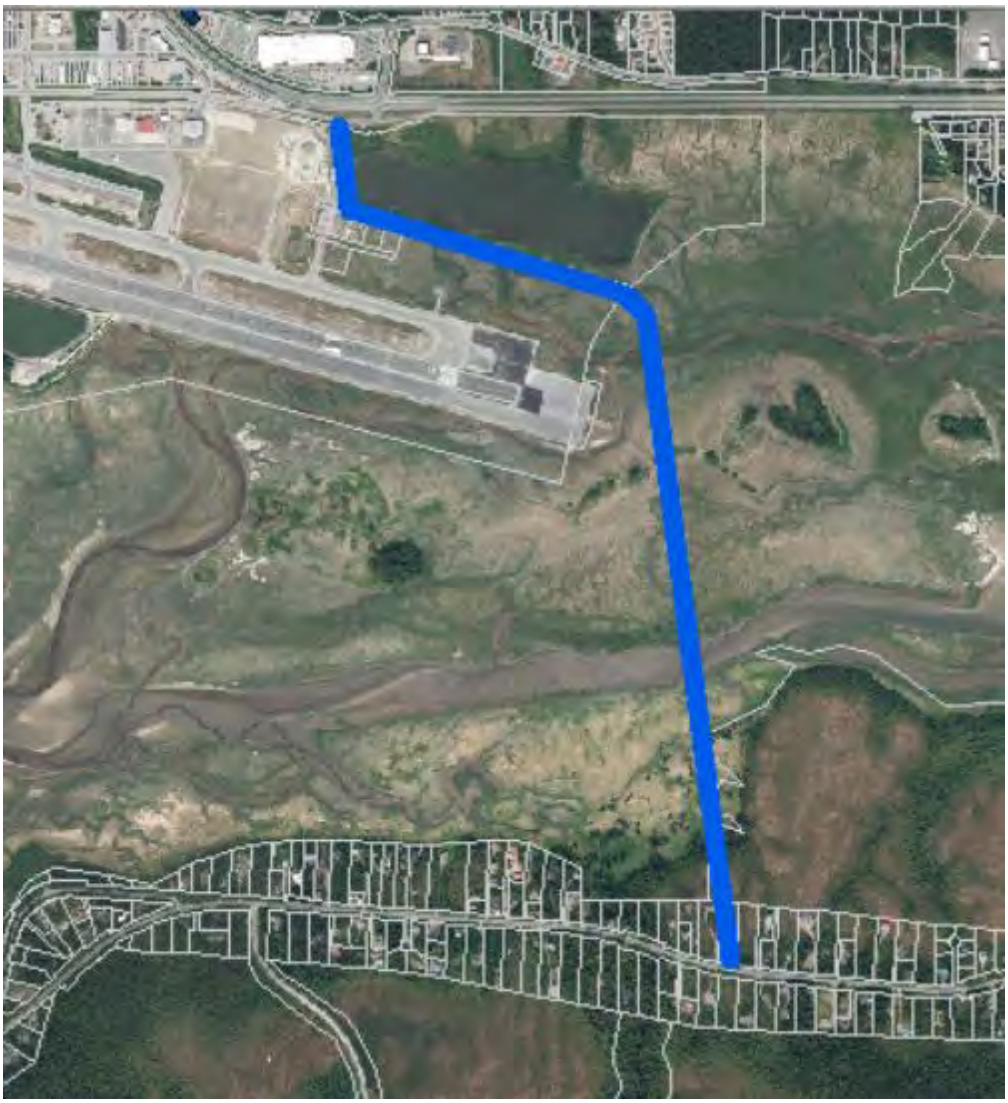
Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Roger Ramsey [redacted]
Sent: Thursday, April 21, 2022 7:30 PM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] Second crossing



[Some people who received this message don't often get email from rogerramsey@me.com. Learn why this is important at http://aka.ms/LearnAboutSenderIdentification.]

WARNING: External Sender - use caution when clicking links and opening attachments.

The above would get my vote for a second crossing. It affects the least area.
And lands on an area already heavily impacted by humans on the mainland side.
Limits skier Traffic on north Douglas highway to a short distance.
Lands on a city Lot on the island side.

I hope this helps,

Roger Ramsey
AK Certified General Appraiser #570
907-723-2936
Fax 866-404-7117

25. Southeast Alaska Land Trust

DATE	ITEMS	PAGE
12/20/2022	SEALT Comments and Questions on Juneau Douglas North Crossing PEL Study Materials	594
2/3/2023	SEALT Comments on Juneau Douglas North Crossing PEL Study Preliminary Alternatives	608
3/17/2023	SEALT Comments on Level 1 Screening Results	612
4/11/2024	Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments	617

From:	Morgan McCammon
To:	Krista Garrett
Cc:	Margaret Custer; PUB-JDNorthCrossing
Subject:	RE: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee
Date:	Thursday, February 2, 2023 4:35:28 PM
Attachments:	SEALT 12-20-2023 Letter Response.pdf

Good afternoon Krista,

Thank you again for the comments and questions. We appreciate your involvement in the study and on the advisory committee. Please see the attached response memo. Please let us know if you would like to discuss any of these issues further, we would be happy to meet with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Krista Garrett <[redacted]>
Sent: Wednesday, December 21, 2022 8:05 AM
To: Morgan McCammon [redacted]>
Cc: Margaret Custer <[redacted]>
Subject: RE: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

Morgan,

Thank you very much.

-Krista

--
Krista Garrett
she/her/hers
Conservation Director

Southeast Alaska Land Trust
[redacted]
Juneau, Alaska 99801
[redacted]
[redacted]
www.southeastalaskalandtrust.org

From: Morgan McCammon [redacted]>
Sent: Tuesday, December 20, 2022 4:38 PM
To: Krista Garrett [redacted]>
Cc: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: RE: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

Good afternoon Krista,

Thank you for the comments and questions. The team is working to provide answers as soon as possible.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Krista Garrett [redacted]
Sent: Tuesday, December 20, 2022 2:57 PM
To: Morgan McCammon [redacted]>; Daugherty, Leslie K (DOT) [redacted] 'Katie Koester' [redacted]>; 'Meitl, Sarah J (DNR)' [redacted]
Cc: Heidemann, Marie E (DOT) <[redacted]; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]>; Kolwaite, Douglas S (DOT) <[redacted]>; christina.mounce [redacted]>; irene.gallion [redacted]; Alec Venechuk [redacted]; Steven Noble [redacted]>; Renee Whitesell [redacted] Nina Keller Horne [redacted] Jovie Garcia [redacted]; Theresa Dutchuk [redacted] Michael Horntvedt [redacted]>; Mike Hall [redacted] Marella Gungob [redacted]; Sean Holland [redacted]; Ryane Gray [redacted]
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello,

Please find attached a memo outlining SEALT's comments and questions regarding the PEL study's draft materials and processes shared with the Technical Advisory Committee during the meeting on 11/17/2022. We are requesting responses to our questions be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

Thank you,

--

Krista Garrett
she/her/hers
Conservation Director

Southeast Alaska Land Trust
[redacted]
www.southeastalaskalandtrust.org

From: Morgan McCammon [redacted]>
Sent: Monday, November 21, 2022 4:33 PM
To: Daugherty, Leslie K (DOT) [redacted] Katie Koester [redacted]>; Meitl, Sarah J (DNR) [redacted]
Cc: Heidemann, Marie E (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) <[redacted] Kolwaite, Douglas S (DOT) <[redacted]; christina.mounce [redacted]gov>; irene.gallion <[redacted]>; Alec Venechuk [redacted]>; Steven Noble [redacted] Renee Whitesell <[redacted]com>; Nina Keller Horne <n[redacted]; Jovie Garcia [redacted]m>; Theresa Dutchuk <t[redacted] Michael Horntvedt [redacted]>; Mike Hall [redacted]; Marella Gungob [redacted]>; Sean Holland[redacted]; Ryane Gray <r[redacted]
Subject: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

Good afternoon Technical Advisory Committee Members,

Thank you for your continued participation on the Technical Advisory Committee. For those of you that were unable to attend the meeting, please see attached the following documents:

- Draft Purpose and Need Statement
- Draft Recommended Alternative Selection Criteria Memo
- Map of the eight preliminary alternatives – please note that the shading on these alternatives illustrates the range of possible alignments and termini – this shading is not the anticipated footprint.
- Please note that the potential bench road identified on the map is an idea we have heard about from many community members and is being considered by the study team. It is not considered an alternative for the PEL Study.

Please reach out to me if you would like to schedule time with a member of the study team to discuss these documents, ask additional questions, or share any other thoughts you might have. We would be happy to schedule a phone call, a virtual meeting, or an in-person meeting in Juneau.

Please provide your feedback by Wednesday, November 30, 2022.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

SEALT Comments and Questions on Juneau Douglas North Crossing PEL Study Materials

December 20, 2022

The Southeast Alaska Land Trust (SEALT) has several pieces of feedback for the PEL Study's Purpose & Need Statement, Recommended Alternative Selection Criteria, and Preliminary Alternatives Map. As we have communicated before, SEALT is primarily concerned about impacts to the Mendenhall Wetlands State Game Refuge and protected areas (such as SEALT mitigation sites).

In this document, we have provided feedback and recommendations in five categories. We also have questions for the study team in each category and are requesting that responses to these questions be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

Consultation with Resource Agencies

Consultation with the relevant resource agencies (e.g., USFWS, ADF&G, NOAA), is essential for conducting a high-quality study. The Technical Advisory Committee meetings are insufficient for achieving this purpose; aside from the fact that agency representatives located outside of Juneau could not attend the exclusively in-person meetings, the materials were not shared ahead of time, or in a format that would allow for thoughtful consideration and useful, expert input. The study team must consult directly and individually with each agency regarding the preliminary alternatives and screening criteria.

SEALT recommends:

1) The study should engage in direct consultation with agencies who maintain datasets and technical expertise that should inform this study, including, at minimum: USFWS, ADF&G, ADEC, DNR, USFS, and NOAA Fisheries.
2) Consultations should be scheduled to allow agency representatives located outside of Juneau to attend and materials should be provided beforehand to facilitate meaningful engagement and feedback.
3) These consultations should include discussion of important resources likely to be impacted by each alternative location and the availability of the best data sources for understanding and evaluating those impacts.
    - For example, the Level 2 analysis outlined in the Recommended Alternative Selection Criteria relies heavily on GIS analysis. State and federal resource agencies are the subject matter experts and should be consulted regarding the best available data.
4) Consultation steps should be identified in the Recommended Alternative Selection Criteria document.
    - Page 7 of the Recommended Alternative Selection Criteria document states "The decision of which alternatives ultimately advance to detailed alternative development will be based on professional judgement." This must include the professional judgment of the resource agencies.

Additionally, one of the Level 2 screening criteria is "Level of Technical Advisory Committee support: supportive vs. opposing comments received." **Please provide additional information regarding how and**

when during the PEL study process these comments will be solicited. The TAC meetings are insufficient for collecting these comments as no materials were provided ahead of time, preventing meaningful engagement by the committee members. It is unreasonable to expect on-the-spot comments.

Questions:

1) **At what point in the PEL study will you be engaging in direct consultation with relevant agencies?**
2) **How and when will you be soliciting supportive/opposing comments for review in Level 2 screening?**

Consultation with Tribes

The Recommended Alternative Selection Criteria should include direct consultation with local Tribal governments. The Stakeholder Advisory Committee meetings are insufficient for engaging with the appropriate representatives on the impacts of the proposed alternatives. Consultation with the traditional landowners and stewards is essential, particularly to identify and avoid impacts to sacred cultural sites that may not be a part of publicly-available data sets.

SEALT recommends, at minimum, a consultation with the Central Council of Tlingit and Haida Indian Tribes of Alaska and with Douglas Indian Association, who both have traditional and documented claims within the study area. We suggest the following points of contact:

- Raymond Paddock, [redacted]
- Heather Gatti, [redacted]
- Sarah Dybdahl, [redacted]
- Andrea Cadiente-Laiti, [redacted]

Question:

1) **At what point in the PEL study will you be engaging in direct consultation with local Tribal governments?**

Data Transparency

The PEL study should provide the Technical Advisory Committee members and consulting resource agencies additional transparency regarding the data used in screening the preliminary alternatives.

Areas requiring explanation of data use:

1) Additional information about how past studies have been or will be incorporated into this analysis is necessary. Either Level 1 or Level 2 screening should include criteria based on past study and consideration.
    - For instance, if a materially similar alternative was considered in a past study, provide the outcome of that study and the rationale for including it in this PEL study.
2) The Recommended Alternative Selection Criteria Appendix B references an "Environmental Setting Report" (DOWL 2022). This does not appear to be included on the PEL Study website; this should be made available for review by the Technical Advisory Committee and consulting resource agencies.
3) A list of the specific GIS data that will be used in the Level 2 screening criteria should be published.
4) The Purpose and Need Statement references traffic analyses; these traffic analyses should be cited and made publicly available.

Additionally, and perhaps most importantly, the results of the Level 1 and Level 2 screening for the final alternatives identified by the PEL study should be shared with the Technical Advisory Committee (relevant resource agencies). The federal and state agencies are the subject matter experts on the criteria being considered and should review the results to ensure that data is interpreted correctly. For example, in Level 1 screening, one of the criteria is "contaminated sites directly affected: yes/no". The Alaska Department of Environmental Conservation should have the opportunity to review the results of the screening to verify that their data has been interpreted correctly.

Questions

1) **How will the Environmental Setting Report, GIS screening data, and traffic analyses be made available for review by the Technical Advisory Committee?**
2) **How and when will the results of the Level 1 and Level 2 screening for the final alternatives be shared with the relevant resource agencies?**

Process and Engagement

ADOT should clarify the role of the PEL study in fulfilling its National Environmental Policy Act (NEPA) obligations and whether the agency is planning for project alternatives to be studied in an environmental impact statement (EIS) or environmental assessment (EA). It is important that the public, stakeholders, and consulted entities understand the process with which they are engaging in order to be able to do so effectively. Moreover, the decision about whether to complete an EA or EIS should be made in consultation with the entities described above.

SEALT Recommends:

Regardless of how ADOT plans to fulfill NEPA obligations, a no-build alternative must be considered. At a minimum, the Recommended Alternative Selection Criteria document should clearly outline why the no-build alternative is not being included in Level 1 and Level 2 screening. Additionally, the data supporting the PEL's draft purpose and need sections should be disclosed. Without understanding why alternate access and decreased traffic pressure on the existing bridge are needed, it is impossible to develop alternatives to address the purpose of improving connection between Juneau and Douglas Island. The public, stakeholders and consulted entities should be given an opportunity to engage with that data and help develop the needs statement.

Questions

1) **What is the role of the PEL study in fulfilling NEPA obligations?**
2) **What part of this PEL study replaces or substitutes for components of scoping?**
3) **Will there be a full EIS, or does this PEL study prevent the need for an EIS?**
4) **What data (traffic analyses) exist to support the concept that there is a "need" for decreasing traffic pressure on the existing bridge?**

Refuge Integrity

It is essential that the integrity of the Mendenhall Wetlands State Game Refuge be thoroughly considered and that impacts to the Refuge be fully disclosed to the public. The screening criteria, as currently drafted, only captures discrete, direct impacts to the natural resources (e.g., "wetlands directly affected: acreage impacted by construction").

Preconditions for construction within the Refuge

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. In accordance with this statute, the screening criteria must note that construction within the Refuge boundaries should be considered only after significant need has been established, and all other options are exhausted.

The Refuge is greater than the sum of its parts, in the following ways:

1) Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge.
2) A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.
    - For example, a second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Such a prohibition would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
    - Additionally, the location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, birding, fishing, and cultural activities.
3) The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's continued functionality as a wetland.
    - SEALT is especially concerned with crossing alignments adjacent to our conservation properties. As previously discussed, many of these properties are mitigation sites, providing compensatory mitigation through the USACE's In-Lieu Fee Program. Most of them were identified in the 2008 Juneau International Airport Large Project Mitigation Plan as selected in-kind mitigation sites, and were conserved for the purpose of offsetting the impacts of the airport's expansion. A crossing through the Refuge could be designed to avoid construction on these specific conservation properties. However, if the hydrodynamics are not thoroughly understood and accounted for, these mitigation sites could be isolated from their sustaining freshwater and tidal inputs, resulting in their transition from wetland to upland. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the aforementioned 2008 mitigation plan and the mitigation plans for SEALT's mitigation sites.
    - Likewise, a second crossing's impacts to the hydrodynamic connectivity of the entire Refuge and Mendenhall Wetlands complex must be thoroughly accounted for in order to prevent the drying-out of this globally significant estuarine resource.
4) The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. The integrity of this viewshed should be considered in addition to its rare, unique, and irreplaceable environmental values.

5) Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Questions

1) **How will the integrity of the Refuge be considered by the screening criteria?**
2) **How will the hydrodynamics of the Mendenhall Wetlands complex and Gastineau Channel be analyzed in relation to each potential crossing location?**
3) **How is the PEL study accounting for the fact that AS 16.20.034(i) only allows for establishment of a transportation corridor within the Refuge if the need cannot be met off-refuge?**
4) **Will the Refuge boundary be added to all future maps showing the proposed alternatives?**

Conclusion

SEALT is sharing these comments and questions for the PEL Study Team with the Technical Advisory Committee. We request the responses and answers be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

Response to Southeast Alaska Land Trust Comment Letter, dated December 20, 2022

Thank you for your comments and to everyone at the Southeast Alaska Land Trust who contributed. We appreciate your continued participation in this PEL study and on the Advisory Committees. Please see the responses to your questions, organized by the five categories you provided. We would be happy to meet with you to discuss any of these further.

Consultation with Resource Agencies:

1) At what point in the PEL study will you be engaging in direct consultation with relevant agencies?

We are not engaging in any formal consultation during this planning study. The study team has solicited input at all stages with the various agencies mentioned. Some agencies have elected to participate in the Technical Advisory Committee (such as NOAA, USFWS, ADF&G, ADEC, DNR, and USFS), while others have preferred to share feedback and input via email and phone conversations. We are also offering one-on-one meetings with agencies and stakeholders, in response to your recommendation. Direct consultation will come later should any alternatives advance forward for further consideration and NEPA analysis.

2) How and when will you be soliciting supportive/opposing comments for review in Level 2 screening?

The complete list of screening criteria (Level 1 and 2) has been available for review during this current review period. The study team welcomes comments at all phases of the study. The earlier comments are received, the easier they are to incorporate into the study.

Consultation with Tribes:

1) At what point in the PEL study will you be engaging in direct consultation with local Tribal governments?

The study team invited the Central Council of Tlingit and Haida Indian Tribes of Alaska, Douglas Indian Association, Sealaska, and Goldbelt, Inc. to participate in the Technical or Stakeholder Advisory Committee. Central Council of Tlingit and Haida Indian Tribes of Alaska and Douglas Indian Association have designated participants on the Stakeholder Advisory Committee. Sealaska and Goldbelt, Inc., while not tribal governments, have also designated participants on the Stakeholder Advisory Committee. The Central Council of Tlingit and Haida Indian Tribes of Alaska have been

active participants attending most meetings. We are also offering one-on-one meetings with tribal representatives.

Data Transparency:

1) How will the Environmental Setting Report, GIS screening data, and traffic analyses be made available for review by the Technical Advisory Committee?

The Environmental Setting Report was posted to the website in December 2022, shortly following your comment letter. The traffic analyses are part of the Origin-Destination Study currently under review and will be made available on the website.

2) How and when will the results of the Level 1 and Level 2 screening for the final alternatives be shared with the relevant resource agencies?

The study team is planning a joint Technical and Stakeholder Advisory Committees meeting in late February 2023. At this meeting, the study team will share the initial results of the Level 1 screening and solicit feedback. The results of Level 2 screening will be shared with the Advisory Committees in late March 2023 to receive feedback and with the public in mid-April 2023. For additional information on the PEL process, please review the PEL Guidebook at pel_guidebook.pdf (alaska.gov)

Process and Engagement:

1) What is the role of the PEL study in fulfilling NEPA obligations?

A Planning and Environmental Linkages Study is a process that may streamline overall project delivery process by allowing DOT&PF to engage with the public, develop a purpose and need statement, and perform preliminary screening of alternatives during the planning process. The work completed during the PEL study may be carried forward in a future NEPA process. It is not a substitute for the NEPA process. The PEL process reduces duplication and refines the level of effort in the NEPA process.

The alternatives in this study will use a No Build Alternative as a baseline comparison. A No Build Alternative will be carried forward into NEPA regardless of any other alternative recommendations that result from this study.

2) What part of this PEL study replaces or substitutes for components of scoping?

Scoping for a specific project will not be replaced by this study.

3) Will there be a full EIS, or does this PEL study prevent the need for an EIS?

The PEL study is a pre-NEPA planning study that does not replace the NEPA process for a potential future project. Work completed during the PEL study can be carried forward into the chosen alternatives' NEPA process to better ascertain what level of documentation would be necessary for completing the environmental analyses.

4) What data (traffic analyses) exist to support the concept that there is a "need" for decreasing traffic pressure on the existing bridge?

An Origin Destination Study is being completed as part of this study. It will be shared on the study website.

Existing conditions and data were used to develop the purpose and need statement that will be included in the final PEL study, including the section on traffic pressure on the existing bridge:

> *Traffic Pressure on Douglas Island Bridge and its Intersections*
>
> The functional classification of the Douglas Island Bridge is minor arterial. The downtown end of the bridge is controlled by a signalized intersection, and the Douglas side of the bridge is controlled by a roundabout. The bridge is located in a transitioning area, and the posted speed limit is 30 mph. A volume to capacity analysis (Appendix A, *Volume to Capacity Analysis of Existing Juneau-Douglas Bridge*) conducted by Kinney Engineers for this PEL study considers the segment capacity of the bridge, as well as operations at the intersections on either end of the bridge (the roundabout on Douglas Highway and the signalized intersection of Egan Drive with 10th Street), as these intersections may limit capacity. The volume to capacity study found that the Douglas Island Bridge operates near capacity, or Level of Service D (LOS D), during peak hours under existing conditions. LOS C is typically considered to be acceptable operations at the design year. Assuming a conservative 0.25 percent growth rate, the bridge will operate above capacity by 2050, likely resulting in standing queues and significant delays. Even without growth, the bridge was identified as an impediment to population growth and housing opportunities in the 2013 Comprehensive Plan, because future developments in North Douglas, West Juneau, or downtown Douglas will require improvements to the 10th Street and Egan Drive intersection and may require additional traffic capacity on the Douglas Island Bridge. The Comprehensive Plan states these two congestion points limit additional residential development on Douglas Island and impede the CBJ's progress in promoting and facilitating the construction of affordable housing.
>
> Operational analysis indicates the signalized intersection at Egan Drive and 10th Street operates at LOS D during peak hours under existing conditions. The analysis indicates the intersection is operating near capacity with some turning movements at/over capacity. In the 2050 design year, overall operations at the intersection are expected to deteriorate to LOS E during the morning peak but remain at LOS D during the evening peak.
>
> The following movements will experience LOS E:

- Vehicles traveling from Mendenhall Valley and continuing on Egan Drive (queues will exceed 600 feet)
- Vehicles heading from Douglas Island and turning onto Egan Drive towards the Mendenhall Valley (queues will exceed 500 feet)
- Vehicles heading from Douglas Island and continuing onto 10th Street (queues will exceed 500 feet)
- Vehicles heading from downtown via Egan Drive and turning left towards Douglas Island

Operational analysis indicates the roundabout at Douglas Highway with Douglas Island Bridge operates acceptably (LOS D or better) during the evening peak under existing conditions and in the 2050 design year. Under existing conditions during the morning peak, significant delay (LOS F with queues over 500 feet) is experienced by vehicles entering the roundabout from West Juneau/Douglas and continuing onto North Douglas Highway or turning right onto the bridge (towards downtown). The through and right turn lanes are shared resulting in a high volume of vehicles wishing to turn right to cross the bridge (more than double the volume of any other movement entering the roundabout), causing some congestion. Additionally, vehicles entering the roundabout from North Douglas Highway and continuing onto the Douglas Island Bridge have right-of-way in the roundabout over the vehicles entering from West Juneau/Douglas, exacerbating the congestion. By 2050 this delay is expected to cause the roundabout to operate at LOS F, and queues are expected to extend nearly 1,000 feet.

Refuge Integrity:

1) How will the integrity of the Refuge be considered by the screening criteria?

The screening criteria include Section 4(f)/6(f) resources, protected lands directly affected, wetland impacts, impacts to habitat, and hydrologic connectivity.

2) How will the hydrodynamics of the Mendenhall Wetlands complex and Gastineau Channel be analyzed in relation to each potential crossing location?

It is not known yet how data collection would be conducted, but potentially hydrologists could come up with a hydraulic risk assessment metric for each of the locations; factoring things like flooding/storm surge, ice and debris, sea level rise (however Juneau has sea level fall), climate change, scour potential, and navigability.

3) How is the PEL study accounting for the fact that AS 16.20.034(i) only allows for establishment of a transportation corridor within the Refuge if the need cannot be met off-refuge?

We are evaluating proposed alternatives against the purpose and need. If we identify multiple viable alternatives, then AS 16.20.034(i) would be a consideration in the proposed alternative. Any alternative within the refuge would be developed in consultation with ADF&G.

4) Will the Refuge boundary be added to all future maps showing the proposed alternatives?

Yes, this request has been made by many advisory committee members and public.

Thank you again for your comments. Your feedback is helpful, and we have made some changes in the preliminary alternatives and screening criteria in response to comments received from you and others. Our formal comment period has been extended to February 3, 2023, because we modified the Sunny Point alternative. This modification may allow us to avoid the SEALT conservation properties and mitigation sites when evaluating this preliminary alternative. We look forward to your continued involvement and feedback.

SEALT Comments on Juneau Douglas North Crossing PEL Study Preliminary Alternatives

February 3, 2023

The Southeast Alaska Land Trust (SEALT) submits the following comments to the PEL Study to identify our concerns about the study's process and impacts to the Mendenhall Wetlands State Game Refuge and SEALT in-lieu fee mitigation sites.

The long history of the concept of a second crossing to Douglas Island makes clear that the community is interested in this idea. There is also, however, documented community support for the preservation of the Mendenhall Wetlands State Game Refuge (Refuge).

While SEALT does not oppose the establishment of a second crossing, the habitat and recreation values of the Refuge, as well as the necessity of avoiding SEALT's in-lieu fee mitigation sites, should eliminate from consideration all crossing locations within the Refuge's boundaries. Only four of the eight preliminary alternatives appear to be outside of the Refuge and should be advanced for further consideration.

Process

SEALT has engaged in the PEL Study process by participation on the Technical Advisory Committee and provides the following pieces of feedback related to the Study's process.

Technical Advisory Committee Engagement

SEALT continues to be concerned that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. The Technical Advisory Committee (TAC) meetings since last spring have been exclusively in person, limiting the accessibility of the meetings. Furthermore, materials have not been provided in advance of meetings; it is unreasonable to expect meaningful contributions from committee members without advance time to review materials. Lastly, SEALT provided extensive comments and questions to the study team and TAC on December 20, 2022, requesting a response before Level 1 screening begins or by February 1, 2022. These comments were submitted in response to materials and information presented at the November 17, 2022 TAC meeting, on which the PEL Study team requested feedback. SEALT did not receive a response until close of business on February 2, 2023 (24 hours before closing of the public comment period).

SEALT is perplexed by the purpose of the Technical Advisory Committee, as the process has limited the ability of members to provide substantive contributions, and the PEL Study team has been alternately slow to respond or unresponsive to requests for additional information.

SEALT strongly urges the PEL Study team to meaningfully engage with relevant agencies and experts during the next stages, providing adequate time to review materials and provide feedback. The success of this study, and the project it may enable, will depend on proactive and meaningful collaboration with experts who can ensure that a truly appropriate alternative is selected.

Additional Context Needed

The preliminary second crossing location alternatives have been presented to the public, and comment requested, without context on traffic analyses, crossing design, feasibility, environmental concerns, or legal challenges.

At a minimum, all maps showing the crossing locations should include the boundaries of the Refuge. The community of Juneau has repeatedly demonstrated an interest in seeing the Refuge protected; leaving the Refuge off of the maps is misleading.

SEALT strongly suggests that the data being used to assess each preliminary alternative (relevant traffic studies, environmental resource data, Refuge boundaries, etc.) be shared with the Technical Advisory Committee and the public, so that each alternative can be reviewed in context.

Mitigation Site Protection

SEALT's primary priority is the protection of all of its conservation properties and in-lieu fee mitigation sites potentially impacted by the preliminary second crossing locations.

SEALT is an approved mitigation sponsor with the U.S. Army Corps of Engineers (USACE) and has operated an in-lieu-fee program in Southeast Alaska since 1998, providing compensatory mitigation services to developers seeking permits for projects that result in a loss of aquatic resource functions. SEALT's mitigation services are provided through voluntary transactions with willing landowners.

Mitigation Sites for the Juneau Airport

In 2009, SEALT provided wetland mitigation credits to the City and Borough of Juneau to compensate for the loss of aquatic resource functions resulting from the Juneau International Airport expansion into the Mendenhall Wetlands State Game Refuge. This required compensatory mitigation was outlined in the 2009 Department of the Army permit POA-1981-320-M22 and the April 2007 *Juneau International Airport Final EIS and Section 4(f) Evaluation)*. The 2007 EIS summarized the airport expansion's compensatory mitigation plan, stating that CBJ "would establish an in-lieu fee for the mitigation and provide the fee" to SEALT, in order for SEALT to acquire "accreted lands within the original Refuge boundary, with a goal of fully mitigating for direct unavoidable impacts to the Refuge and for unavoidable impacts to wetlands…caused by the Airport projects within the Refuge."

Since 2009, SEALT has used the in-lieu fee generated by the Juneau Airport expansion project to acquire 22 private parcels adjacent to the Mendenhall Wetlands State Game Refuge as wetland mitigation sites, in accordance with our in-lieu-fee program agreement with the USACE and the 2007 EIS. The SEALT mitigation sites around the Refuge were chosen for the Juneau Airport expansion's impacts specifically because they were the most appropriate in-kind mitigation, as their proximity and function matched the impacted aquatic resources.

Impacts to these mitigation sites would irreparably harm the Mendenhall Wetlands ecosystem and negate the in-kind compensatory mitigation completed for the Juneau Airport expansion. There are very few properties adjacent to the Refuge that would match the aquatic resource functions of the existing mitigation sites. For this reason, impacts to SEALT's mitigation sites would be nearly impossible to adequately mitigate.

Critical Wetland Continuity

In addition to avoidance of direct impacts to mitigation sites (e.g., construction within the legal boundaries of a mitigation site), off-site construction could lead to a significant or complete loss of aquatic resource function on SEALT's mitigation sites.

The construction of a bridge or causeway through the wetlands complex at any location will alter the hydrodynamics and could isolate mitigation sites from sustaining freshwater and tidal inputs, resulting in mitigation sites converting from wetland habitat to uplands. This would have the same result on the function of the in-lieu fee mitigation sites as construction on the site itself. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the intent of the Juneau Airport's mitigation plan and the mitigation plans for SEALT's mitigation sites.

The PEL Study should remove from consideration all alternatives 1) that pass through SEALT's 22 in-lieu fee mitigation sites or 2) are proximal to mitigation sites and constructed such that significant impacts to the hydrologic inputs are expected (i.e., a causeway).

Refuge Avoidance

Consistent with our 21-year effort to protect the boundaries of the Refuge through in-lieu fee mitigation sites, it is SEALT's priority to ensure the integrity of the Refuge and its habitat, recreation, and ecosystem services. Any crossing structure through the Refuge will irrevocably damage its functionality as a wildlife refuge, recreation destination, and scenic viewshed.

Off-Refuge Construction

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. The PEL Study has already identified several crossing locations outside of the Refuge's boundaries that would satisfy the Purpose and Need Statement as presented in November 2022. Therefore, in accordance with this statute, all other preliminary second crossing alternatives should be removed from consideration.

Fragmentation Concerns

Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge. Examples of the impacts of fragmentation include:

Refuge Users: A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.

1) A second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Perpetuating access to waterfowl hunting was a key reason for the establishment of the Refuge, and loss of this use would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
2) The location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, hunting, birding, fishing, and cultural activities.

Hydrodynamics: The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's hydrodynamic connectivity and continued functionality as a globally significant estuarine wetland.

Viewshed: The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. This viewshed should be preserved in addition to its rare, unique, and irreplaceable environmental values.

Noise: Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Avoiding Additional Impacts

Over 35-40% of the greater Mendenhall Wetlands complex has been filled by development. The PEL Study has already identified crossing locations outside of the Refuge's boundaries that meet the identified needs. There is ample opportunity to study potential second crossing locations that meet the communities needs and do not impact the Refuge's essential and diminishing resources.

The PEL Study should remove from consideration all alternatives that pass through the Mendenhall Wetlands State Game Refuge.

Conclusion

The Southeast Alaska Land Trust cannot support the PEL Study's preliminary alternatives that impact SEALT mitigation sites and/or the Mendenhall Wetlands State Game Refuge, including: "North Airport", "Sunny Point Area A", "Sunny Point Area B", and "Vanderbilt". These alternatives should be removed from consideration.

SEALT encourages the PEL Study to focus on preliminary alternatives that do not impact the Refuge, including: "Salmon Creek", "Eagle Creek", and "Downtown".

With careful study and design, the "Mendenhall Peninsula" alternative could be located and constructed in a way that would not impact mitigation sites or the Refuge.

SEALT is available for consultation on any alternatives, proposals, and concepts as necessary to develop a successful project that meets the needs of the community.

SEALT Comments on Level 1 Screening Results

Provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee 3/17/23 in response to the request for comments on the application of Level 1 screening detailed in the 3/2/23 Technical Memorandum on Level 1 Screening Results.

Level 1 Screening Process & Application of Screening Criteria

1) Table 2 (page 5) summarizes the results of screening each alternative for the Additional Goals. For the goal of maintaining the visual, cultural, and scenic identity of Juneau and Douglas Island, the West Sunny Point, East Sunny Point, and Vanderbilt alternatives are assigned a value of "medium." These values should be changed to "low" for the following reasons:
    a. The stretch of Gastineau Channel encompassing the Sunny Point and Vanderbilt Creek alternatives was designated in CBJ's 2008 Comprehensive Plan as a scenic corridor/viewshed (see enclosed figure). The community of Juneau highly values this scenic viewshed and that recognition justifies evaluating this additional goal as "low" for the Sunny Point alternatives and the Vanderbilt alternative.
    b. The community of Juneau further demonstrated its interest in the Refuge in the CBJ Lemon Creek Area Plan.
        i. The plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access; planning for this "multimodal trail" is currently underway.
        ii. This information from the Lemon Creek Area Plan further illustrates the importance of the undisturbed Refuge in the Sunny Point/Lemon Creek/Vanderbilt region for public access and viewsheds. Placing a second crossing in this vicinity would significantly damage the visual and scenic identity of the Lemon Creek neighborhood and the whole Juneau community, as well as undermining current plans to develop recreational resources in this area.
    c. These locations represent some of the widest points of the Refuge, resulting in a significant stretch of open estuarine wetlands, uninterrupted by human development. This open viewshed is particularly unique in Southeast Alaska, where so much of our landscape is dominated by steep mountains and towering trees – only 2% of land area is comprised of tidal estuaries (Ecological Atlas of Southeast Alaska, Audubon Alaska). This iconic view is seen by visitors flying into Juneau International Airport, each tourist traveling from downtown, and, most importantly, every resident who travels on Egan Drive for work, errands, or other daily activities. Placing a large crossing structure at one of these locations would dramatically decrease the visual, cultural, and scenic identity of our community.
    d. Locating a crossing structure at one of these locations would significantly disrupt recreational uses of the Refuge. The Refuge is a unique recreational destination in Juneau, due to its flat elevation profile and open landscape, offering opportunities

unavailable at most of Juneau's parks and trails. A crossing structure would restrict access to the Refuge by creating a barrier impassable by Refuge users, as well as degrading users' ability to enjoy an undisturbed natural environment, significantly impacting the cultural identity of Juneau as a community with easy access to a diversity of outdoor recreation opportunities.

2) Table 3 (page 6) states that all of the alternatives are "Consistent with plans, policies, and development code." Review of this criterion should be updated to reflect that none of the alternatives within the Refuge are consistent with several key planning documents and should be marked "N." The alternatives within the Refuge are inconsistent with the following planning documents:
    a. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
    b. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the as high-functioning estuarine wetland mitigation sites around Sunny Point.
    c. **2013 CBJ Comprehensive Plan**:
        i. The alternatives located within the Refuge's boundaries are also inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
        ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damaging to the visual, cultural, and scenic identity of the community.
    d. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
3) Table 3 (page 7) notes that all of the alternatives received "high" levels of public support, except for the Twin Lakes and Salmon Creek alternatives. Because the figures illustrating levels of public support for the different alternatives presented by the Study Team are not reflective of the email comment log that was shared with the Technical Advisory Committee, it is not possible for

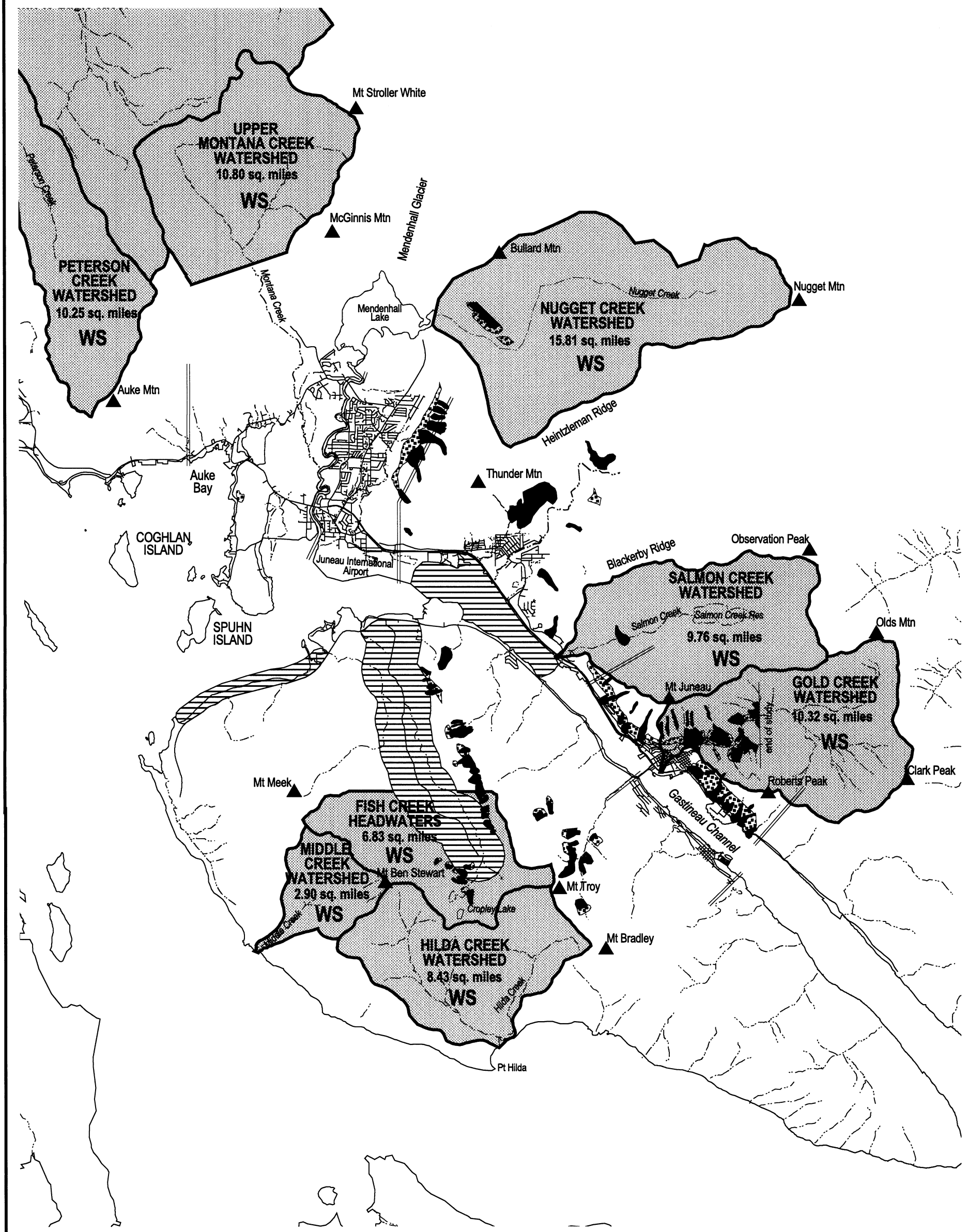
the Advisory Committees to determine whether this is an accurate assessment without being provided the results of the survey. When will the full survey results be shared with the Technical Advisory Committee?

4) The narratives for each alternative screened provides statements about each alternative's impact on travel times, presumably based on the origin-destination study. This study must be made publicly available so that stakeholders and the public can understand the analysis supporting these statements.
5) Please review the Level 1 Alternative Screening Results narratives to ensure consistency across the discussions of each alternative. For example:
    a. The discussion of the Mendenhall Peninsula alternative states that this alternative would result in "adverse visual impacts associated with the construction of a road at the top or [sic], or part way up a ridge" but the discussion of none of the other alternatives discusses the adverse visual impacts of a crossing structure across the Mendenhall State Game Refuge. It is unequal to provide a concrete statement about the adverse impacts of one location (Mendenhall Peninsula) and defer to "further analysis" for the other locations (e.g., page 13, page 15, etc.).
    b. The advantages/disadvantages narratives for the West and East Sunny Point alternatives should be reviewed for consistency, given the similarities between the two alternatives.
    c. The discussion of the Twin Lakes alternative identifies the potential intersection with Egan Drive as a disadvantage of this alternative. All other locations requiring "new" intersections should either have this considered in their analysis (e.g., West and East Sunny Point), or this disadvantage for the Twin Lakes alternative should be removed.
6) In all reports, technical memoranda, and other materials, please note that the Southeast Alaska Land Trust's properties on the Mendenhall Peninsula, around Sunny Point, and on Hendrickson Point are wetland mitigation sites under Section 404 of the Clean Water Act, in addition to being conservation properties (e.g., pages 12 and 15). It is important for all stakeholders and decision-makers to understand that impacts to these sites would result in significant additional regulatory complexity, time, and cost.
    a. In addition, these added regulatory complexities and increased costs should be noted when relevant. For example, on page 15 impacting SEALT conservation property is noted as a disadvantage of the East Sunny Point alternative and this should be expanded to state: "An alignment that meets design standards for horizontal curves will likely impact Southeast Alaska Land Trust conservation properties and wetland mitigation sites, resulting in increased costs and permitting complexity."
7) Based on the appendix tables, it appears that the Level 1 screening for impacts to the hydrologic connectivity at each alternative relied on Figure 11 in the Environmental Setting Report. This figure seems to focus on streams and freshwater inputs. Screening for hydrologic connectivity should include consideration of the tidal flows through the channel, as these saltwater inputs sustain the estuarine wetlands. Are you able to re-screen each alternative in Level 1 screening with this in mind? If not, how will you be incorporating consideration of saltwater inputs into Level 2 screening?
8) At the joint advisory committee meeting on Monday March 6, it seemed that each alternative had additional considerations that weren't presented in the Technical Memo. For example, the Study Team stated that there was some concern about the West Sunny Point alternative's

impacts to the airport, which could be a barrier to construction at that location. How will those additional considerations be documented so that there is public validation for the findings of this study?

Preparing for Level 2 Screening

1) In reports, technical memoranda, and other materials, please provide a definition of Section 4 (f) and other resources with important legal designations.
2) How are you going to consider indirect affects to the natural environment? For example, the degree of impact is different in different locations. A structure with the exact same size of footprint at Sunny Point and Salmon Creek would score exactly the same in your Level 2 screening criteria (as written), but would in reality have dramatically different impacts on the natural environment, Refuge, and habitat.
3) In Level 2 screening, how will you include impacts to Refuge access points, which will affect hunting, fishing, subsistence, and recreational activities for users in the project area?
4) In Level 2 screening, how will you be taking into consideration the costs and challenges of replacement for impacts to our mitigation sites when evaluating the West and East Sunny Point alternatives? It is important that stakeholders and decision makers are made aware of the regulatory complexities, legal challenges, and significant costs associated with these alternatives.
    a. The SEALT mitigation sites provide carefully matched in-kind compensatory mitigation for impacts resulting from the Juneau airport's expansion, as outlined in that project's USACE permit. If the regulators were to approve a scheme to replace these mitigation sites, replacement mitigation sites that provide in-kind mitigation for the airport project would need to be identified and approved by both SEALT and the regulators.
    b. There are few, if any, appropriate parcels within the Mendenhall Wetlands complex that could provide similar wetland function to these special, unique, and rare aquatic sites. For this reason, offsetting the impacts to existing mitigation sites would be a major project to ensure that the permit for the Juneau airport's expansion remains compliant. The functional impacts resulting from a second bridge between Juneau and Douglas Island would then have to be permitted and mitigated separately. We are challenged to see how the costs would be calculated adequately, let alone the functional analysis and planning necessary for "double mitigation".
    c. In order for decision-makers at the municipal and state levels to make an informed choice about the alternatives, their requirements, and their expense, how are you planning to account for the time, money, and work products required for impacting SEALT's mitigation sites?
5) We recommend that the PEL Study Team familiarize themselves with the USACE permitting process and compensatory mitigation under Section 404 of the Clean Water Act in order to fully capture the costs associated with providing mitigation for a project of this scale. It is likely that compensatory mitigation will be a not-insignificant cost for a project of this magnitude and this should be reflected in the analysis of whether each alternative is feasible.


Mt Stroller White
UPPER MONTANA CREEK WATERSHED
10.80 sq. miles
WS
Peterson Creek
McGinnis Mtn
Mendenhall Glacier
PETERSON CREEK WATERSHED
10.25 sq. miles
WS
Montana Creek
Mendenhall Lake
Bullard Mtn
Nugget Creek
NUGGET CREEK WATERSHED
15.81 sq. miles
WS
Nugget Mtn
Auke Mtn
Heintzleman Ridge
Thunder Mtn
Auke Bay
COGHLAN ISLAND
Juneau International Airport
Blackerby Ridge
Observation Peak
SALMON CREEK WATERSHED
Salmon Creek
Salmon Creek Res
9.76 sq. miles
WS
Olds Mtn
SPUHN ISLAND
Mt Juneau
GOLD CREEK WATERSHED
10.32 sq. miles
WS
end of runway
Clark Peak
Mt Meek
Roberts Peak
FISH CREEK HEADWATERS
6.83 sq. miles
WS
Gastineau Channel
MIDDLE CREEK WATERSHED
2.90 sq. miles
WS
Mt Ben Stewart
Mt Troy
Cropley Lake
Middle Creek
Mt Bradley
HILDA CREEK WATERSHED
8.43/sq. miles
WS
Hilda Creek
Pt Hilda
Watersheds
Scenic Corridor/Viewshed
Landslide/Avalanche Hazards
High Landslide/Avalanche Hazard
Moderate Landslide/Avalanche Hazard
Subarea Boundary
10000 0 10000 Feet
City & Borough of Juneau
COMPREHENSIVE PLAN
City & Borough of Juneau
Alaska's Capital City
N
Adopted October 20th, 2008
Ordinance No. 2008-30
NOTE: Potential geophysical hazards, wetlands, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.
Prepared by: Community Development Department

From:	Morgan McCammon
To:	Margaret Custer
Cc:	Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Jovie Garcia; Lockwood, Gregory K (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Talli Vittetoe; Theresa Dutchuk
Subject:	RE: [EXT] Comments - JDNC PEL Study Level 2 Screening
Date:	Thursday, April 11, 2024 1:54:26 PM
Attachments:	image002.png

Good afternoon, Margaret,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Margaret Custer <margaret@sealt.org>
Sent: Thursday, April 11, 2024 1:12 PM
To: Daugherty, Leslie K (DOT) <[redacted] Lindgren, Jesse W (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]>; Lynae Craig [redacted]>; c[redacted]; [redacted] kbitslarson <[redacted]; Spencer, Kari <[redacted] Daniel King <[redacted] Matt Robus <m[redacted]>; Matt Little [redacted]>; Dave Hanna <[redacted]; Alaska Concrete Casting <[redacted]

Cc: Morgan McCammon [redacted]>; Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) <[redacted]; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) <[redacted]>; Taylor, Jill A (DOT) <[redacted]; Katie Koester [redacted]; Bridget LaPenter <[redacted]; Irene Gallion [redacted]; Steven Noble [redacted] Renee Whitesell [redacted]; Jovie Garcia [redacted]; Theresa Dutchuk [redacted]; Ryane Gray <[redacted]; Marella Gungob [redacted]; Michael Horntvedt [redacted]>; Mike Hall [redacted]>; Denise Koch <[redacted]; Keller, Nina (DOT) <[redacted]>
Subject: [EXT] Comments - JDNC PEL Study Level 2 Screening

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello all,

SEALT submits the attached comments on the JDNC PEL Study Level 2 Screening.

Best regards,

Margaret Custer, *Executive Director*
[redacted]

We live and work on Lingít Aaní. We strive to be consistent with and supportive of the stewardship of these lands by the Indigenous people of the region, recognizing that they have long cared for these lands and their living resources. Aatlein gunalchéesh.

SOUTHEAST ALASKA LAND TRUST

Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments

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PEL Study Process

These comments are provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee on 4/11/24 in response to the request for comments on the application of Level 2 screening detailed in the Level 2 Draft Screening Results and the Level 2 Draft Impact Quantification Table that were presented at a 3/7/24 JDNC PEL Study Joint Advisory Committee meeting.

SEALT has engaged in the PEL Study process since March 2022 by participation on the Technical Advisory Committee (TAC) and provides the following pieces of feedback related to the PEL Study's process and the data sources used to advance alternatives.

Technical Advisory Committee Engagement

SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. This is a lingering defect in the JDNC PEL Study Process in two ways:

- PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory

committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.

- The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.

Quality of Information and Expertise

In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.

For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.

The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about

potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.

Overview of PEL Study Field Work

Reports from DOWL and Parametrix Field Work

In September 2023, the PEL Study team announced to the TAC that the PEL Study would add field work into the process for Level 2 Screening, with that field work commencing immediately. This feedback is in response to the reports generated by that field work and released to the TAC February 16, 2024:

- Wetland Delineation and Functional Assessment Report (February 2024)
- Intertidal Habitat Survey Report (December 2023)
- Bird and Habitat Surveys Report (January 2024)
- Tier 1 Eelgrass Delineation Report (February 2024)
- Bridge Volume Forecast Memo (February 2024)

Comments relating to these reports follow, with a standalone section for each prepared in the limited time that we have to provide comments before the PEL Study findings are synthesized from the reports.

SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports

It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.

The SEALT Habitat Mapping and Assessment Project includes two significant components:

1. **A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and**
2. **A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.**

The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.

Review of Wetland Delineation & Functional Assessment Report (Feb 2024)

SEALT Review of DOWL Wetland Field Survey Report

SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find **no relation between the wetland survey report and the impact quantification matrix or scores** and **no functional assessment** as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is **no summary of the wetland acreage to be impacted by type and alignment**.

It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.

It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.

We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by

alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.

First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.

Tidal Wetland/Waters Delineation

Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.

Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.

The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.

The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East

alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)

Freshwater Wetlands

Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals. **It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.**

Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.

Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the "missed" area in DOWL's report has significant cover of rusty Menziesia, a shrub classified as "facultative upland" although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.

Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives' alignment crossing Hendrickson Point. Inappropriately considered "FACUP" ("facultative upland," usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.

Given the difficulties of delineation with the USACE's weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL's delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.

We observe, however, that DOWL's impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.

Some of the "missed" areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from "impacted wetland acres" tallies used for comparing alternatives, so this omission is significant and concerning.

While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.

The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ's 2014 mapping were also missed along the Mendenhall Peninsula alignment.

SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.

Lack of Functional Assessments in DOWL's Work

The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.

The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.

The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include

sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.

SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.

Questions

1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?
2. What protocol will DOWL use?
3. Will the alternatives be re-scored using the functional assessments?
4. Will the functional assessments be completed before or after the public comment period opens?
5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?
6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?

Review of Intertidal Habitat Survey Report (Dec 2023)

The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: **"This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."**

SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.

The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft-wide alignment for each alternative, and with few habitat types.

While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:

- For example, the **intertidal crossing distances** given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.
- **Low marsh acreage** in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for **high marsh** as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)
- Special habitats mentioned in the report such as **mussel/rockweed habitat, channels, and deltas** that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.

Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).

High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for

the report's "upper intertidal" do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.

High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.

While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)

It might also be useful in this project area to map "wet high marsh" and/or "ponded high marsh" as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.

It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to -10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?

Review of Bird and Habitat Surveys Report (Jan 2024)

Bird Habitat

The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.

Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.

DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.

The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.

The PEL bird habitat impact rating shows “0”s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.

How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from “hotspots”. Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound *if applied correctly* and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.

If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The ‘points’ represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.

For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional

observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.

Fish Habitat

Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."

Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.

These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.

In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. **Every crossing alternative would disrupt one or more anadromous fish streams**. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.

Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.

The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the

Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.

The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.

Mammal Habitat on Hendrickson Point

The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.

The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.

SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.

The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.

The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.

Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. **This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor.** While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.

Review of Tier 1 Eelgrass Delineation Report (Feb 2024)

Introduction

The “Introduction” starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.

While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report’s introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.

Previous Investigation

The “Previous Investigation” section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the “Previous Investigation” section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.

Methods

A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.

Results

The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For

the purpose of this review, a revised results table with the needed tidal information in italics is shown below.

Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.

While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.

Correction for Table 2: Alignment Traverse and Tide Stage

Alignment	Date (2023)	Start Time	End Time	*Tidal Stage During Survey*	*Low Tide*	
Mendenhall	September 28	6:01 PM	6:48 PM	Ebb	*~.5 to -1*	*(LT -1.38 at 7:17 PM)*
	September 29	5:12 PM	6:06 PM	Ebb	*~7 to 2.5*	*(LT -2.7 at 7:59 PM)*
Sunny Point W	September 29	9:23 AM	10:51 AM	Flow	*~2 to 10*	*(LT -2.29 at 7.33 AM)*
Sunny Point E	September 29	10:09 AM	12:09 PM	Flow	*~4.5 to 15+*	*(LT -2.29 at 7.33 AM)*
Vanderbilt	September 27	5:40 PM	5:48 PM	Ebb	*~1.5 to 1*	*(LT .49 at 6:32 PM)*
	September 28	8:16 AM	9:05 AM	Flow	*~0 to 2.5*	*(LT -2.11 at 6:53 AM)*
Twin Lakes	September 28	7:06 AM	8:03 AM	Flow	*~-2 to -.5*	*(LT -2.11 at 6:53 AM)*
	September 27	6:01 PM	~6:29 PM	Ebb	*~1 to .5*	*(LT .49 at 6:32 PM)*
Salmon Creek	September 27	~6:29 PM	6:40 PM	Flow	*~-1 to .5*	*(LT .49 at 6:32 PM)*
	September 28	9:06 AM	10:01 AM	Flow	*~2.5 to 7*	*(LT -2.11 at 6:53 AM)*

Maps

The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.

The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.

While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.

In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.

- Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.
- The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.
- Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel**.**

Even with some eelgrass on the Falls Creek delta, **the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.**

Review of Bridge Volume Forecast Memo (Feb 2024)

DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores.

The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts. A summary:

- A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).
- **After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040**, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.
- By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.
- The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.

It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.

Level 2 Screening: Process & Methodology

PEL Study Should Be Data- As Well As Process-Driven

- Well-defined and transparent public process
- Coherent and defensible data-based results
- Not meant to circumvent regulatory responsibilities
- Communication to and understanding by stakeholders and technical advisors

These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.

In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.

Screening Elements from 2022-2023 Missing in 2024

DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, **DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.**

- "High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.
- For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.

- The score for “Important Migratory Bird Habitat Impacted” would have been determined by the acreage of habitat impacted by construction.
- For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.
- “Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.
- “Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.
- The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.

Scoring Methodology

No Build

We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.

However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.

Scoring a No Build alternative at 0 for criteria such as "Avoid, minimize, and mitigate negative impacts to the environment" is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.

Weighting the Criteria

It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.

Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.

The Need for Granularity

The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.

The range of -2 to +2 lumps *moderate impacts* with *severe impacts*, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.

Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion "Avoid, minimize, and mitigate impacts to the environment" scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL's current scoring to see that difference.

In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).

Level 2 Screening: Conflicts Between Alternatives and Existing Plans

With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.

1. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
2. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.
3. **2013 CBJ Comprehensive Plan**:
    i. The alternatives located within the Refuge's boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
    ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the

Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.

iii. As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.

iv. Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.

4. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
5. **Marjory and Edgar Huizer Fishing Access Site Management Plan**: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.
6. **Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2**: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "…*may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until:*

"(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an

alternative other than a Sunny Point alternative; and
"(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record.
"Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law."

There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.

Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.

Impacts from Alternatives

SEALT's Functional Assessments

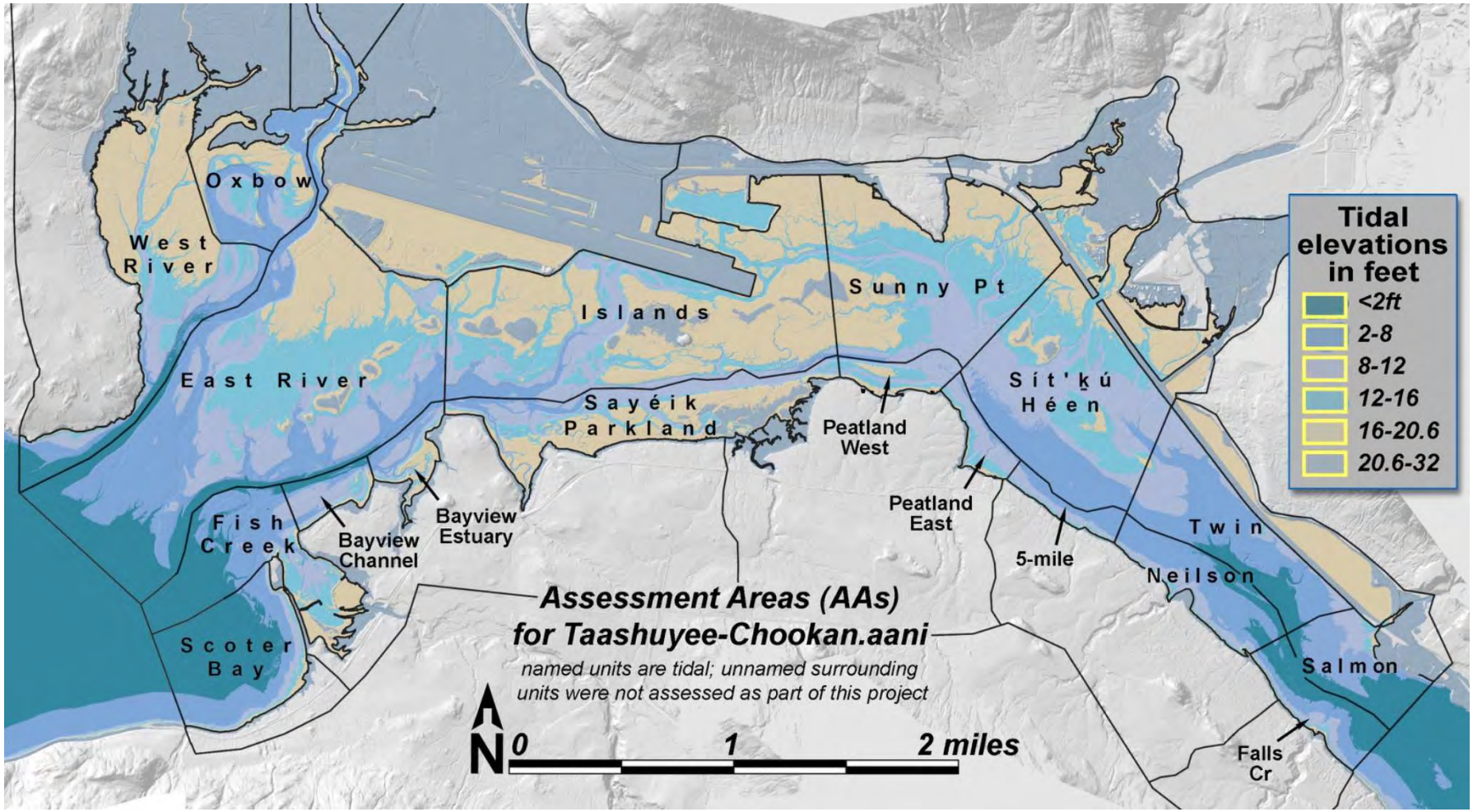
The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.

For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershed-based areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.

Table 1: WESPAK-SE Protocol - Functions and Values

Function or Attribute	Definition	Values
Sediment Retention & Stabilization	The effectiveness for intercepting and filtering suspended inorganic sediments thus allowing their deposition, as well as reducing energy of waves and currents, resisting excessive erosion, and stabilizing underlying sediments or soil.	Maintain quality of receiving waters. Protect shoreline structures from erosion.
Carbon Sequestration	The effectiveness for retaining both incoming particulate and dissolved carbon and converting carbon dioxide gas to organic matter (particulate or dissolved), and then retaining that organic matter on a net annual basis for long periods while emitting little or no methane.	Reduce risk of global climate change.
Organic Nutrient Export	The effectiveness for producing and subsequently exporting organic nutrients (mainly carbon), either particulate or dissolved.	Support food chains in receiving waters. Facilitate transfer of iron to marine waters.
Anadromous Fish Habitat	The capacity to support rearing or spawning habitat of fish species that migrate from marine waters into freshwater streams to spawn, e.g., coho/sockeye.	Support commercial, subsistence, sport, and ecological values. Infuse uplands with marine nutrients.
Waterbird Feeding Habitat	The capacity to support or contribute to an abundance or diversity of waterbirds that migrate or winter but do not breed in the region.	Support subsistence, sport, and ecological values. Maintain regional biodiversity.
Songbird, Raptor, & Mammal Habitat	The capacity to support or contribute to an abundance or diversity of native songbird, raptor, and mammal species and functional groups, especially those that are most dependent on wetlands or water.	Maintain regional biodiversity.
Native Plant Habitat	The capacity to support or contribute to a diversity of native, hydrophytic, vascular plant species, communities, and/or functional groups.	Maintain regional biodiversity and food chains.
Public Use and Recognition	Prior designation of the wetland, by a natural resource or environmental protection agency, as some type of special protected area. Also, the potential and actual use of a wetland for low-intensity outdoor recreation, education, or research.	Commercial and social benefits of recreation. Protection of prior public investments.
Subsistence and Provisioning Services	The “customary and traditional” uses of wild resources for various uses including food, shelter, fuel, clothing, tools, transportation, handicrafts, sharing, barter, and customary trade.	(this is an attribute, not a function or value).
Wetland Sensitivity	A wetland's lack of intrinsic resistance and resilience to human and natural stressors.	(this is an attribute, not a function or value).
Stress Potential	The degree to which a wetland is or has recently been altered by or exposed to, risk from factors capable of reducing one or more function, primarily human-related.	(this is an attribute, not a function or value).

Figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas



Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.

Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.

As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.

Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas

Crossing Site--	Mendenhall Pen.		Sunny Pt E and W		Vanderbilt		Twin Lakes		Salmon Creek	
Assessment Area--	W River	Scoter Bay	Sunny Pt.	Peatland Pt W	Sit Ku Heen	5 Mile	Twin	Neilson	Salmon Ck	Falls Ck
WESPAK-SE overall	10.98 H	8.36 H	10.17 H	8.56 H	9.99 H	9.31 H	8.30 H	8.69 H	7.13 H	7.61 H
(vegetated tidal)										
waterbird feeding	10 H	10 H	10 H	10 H	10 H	10 H	10 H	10 H	9.71 H	10 H

Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.

While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.

The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by

the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.

At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.

WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G-nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.

Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.

The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.

Impacts to Wetlands

False Precision in DOWL's Calculations

The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.

The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.

Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).

This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.

ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.

SEALT Calculations of Impacts to Habitat by Alternative

In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.

Figure 2: Acreage of Impacts by Alternative

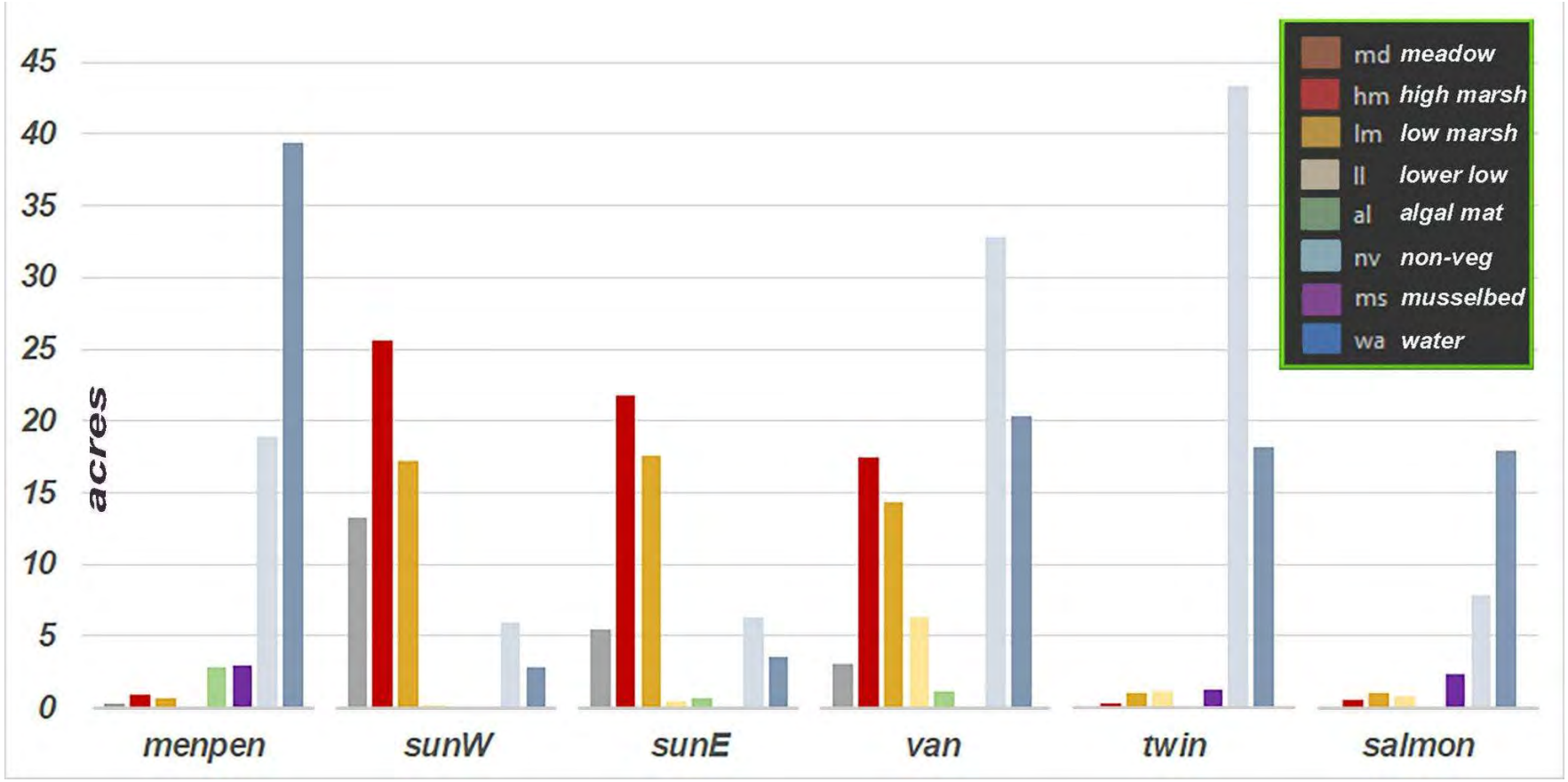


Figure 3: Percentage of Habitat Impacts by Alternative

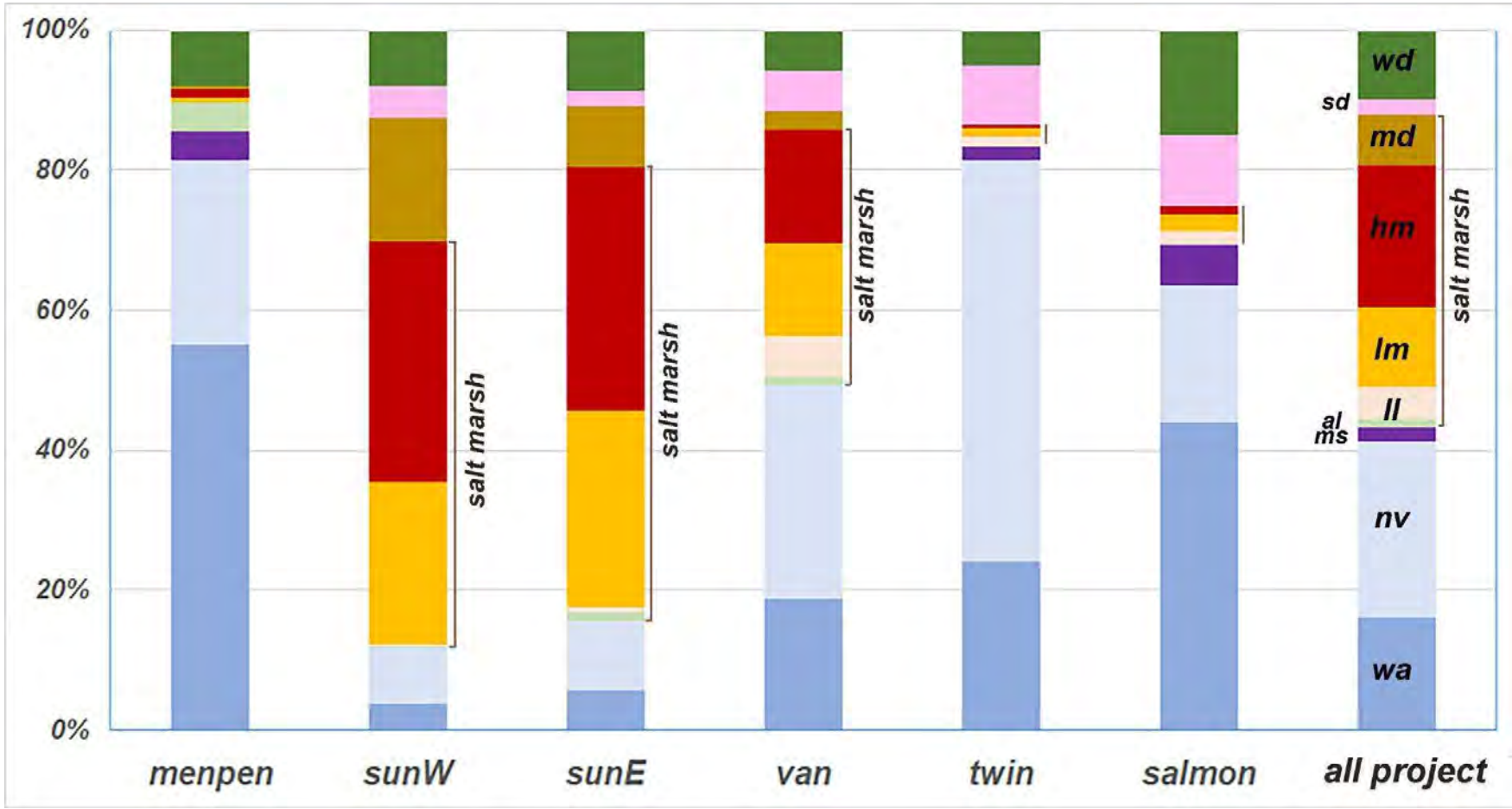


Figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map

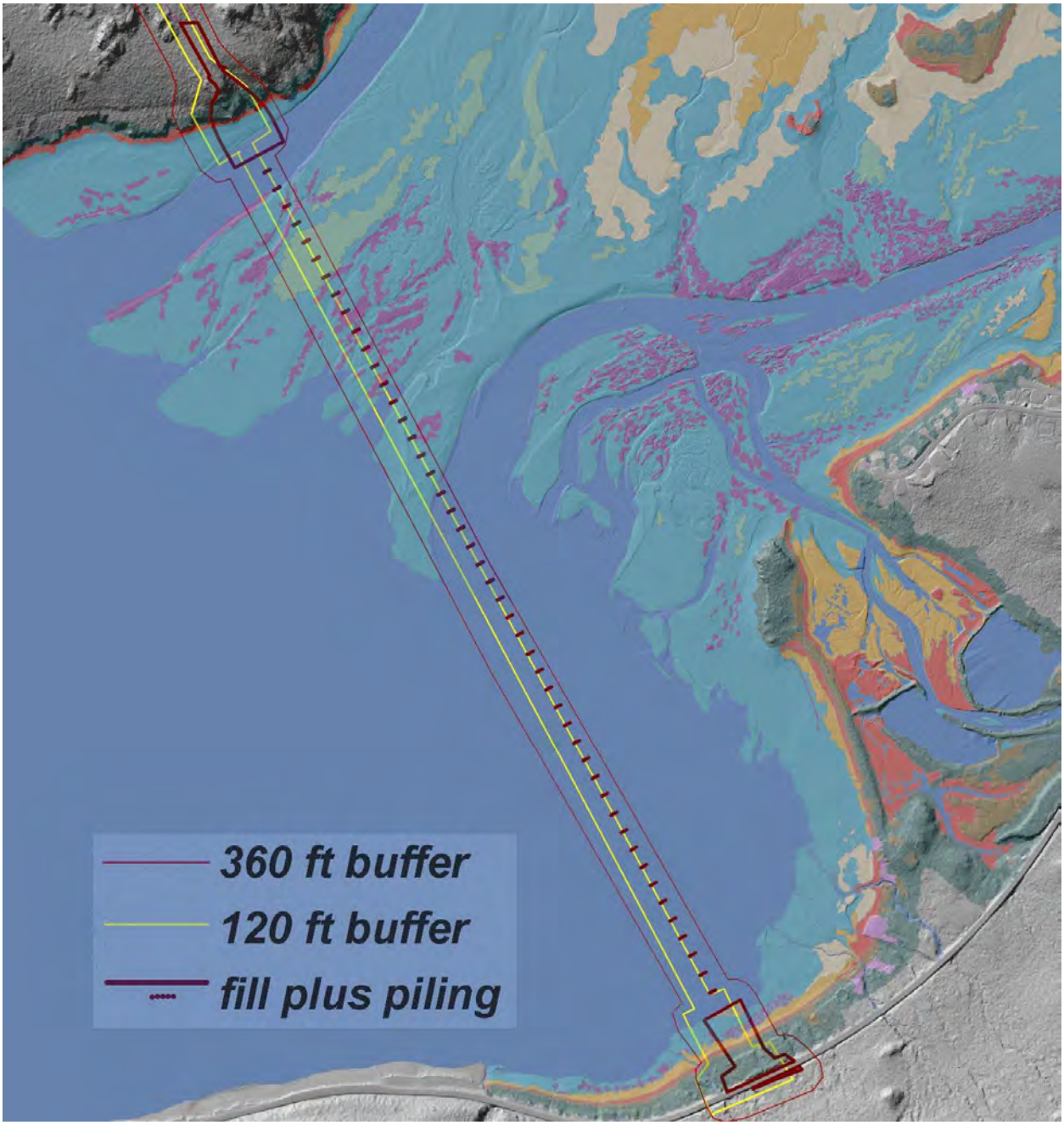


Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map

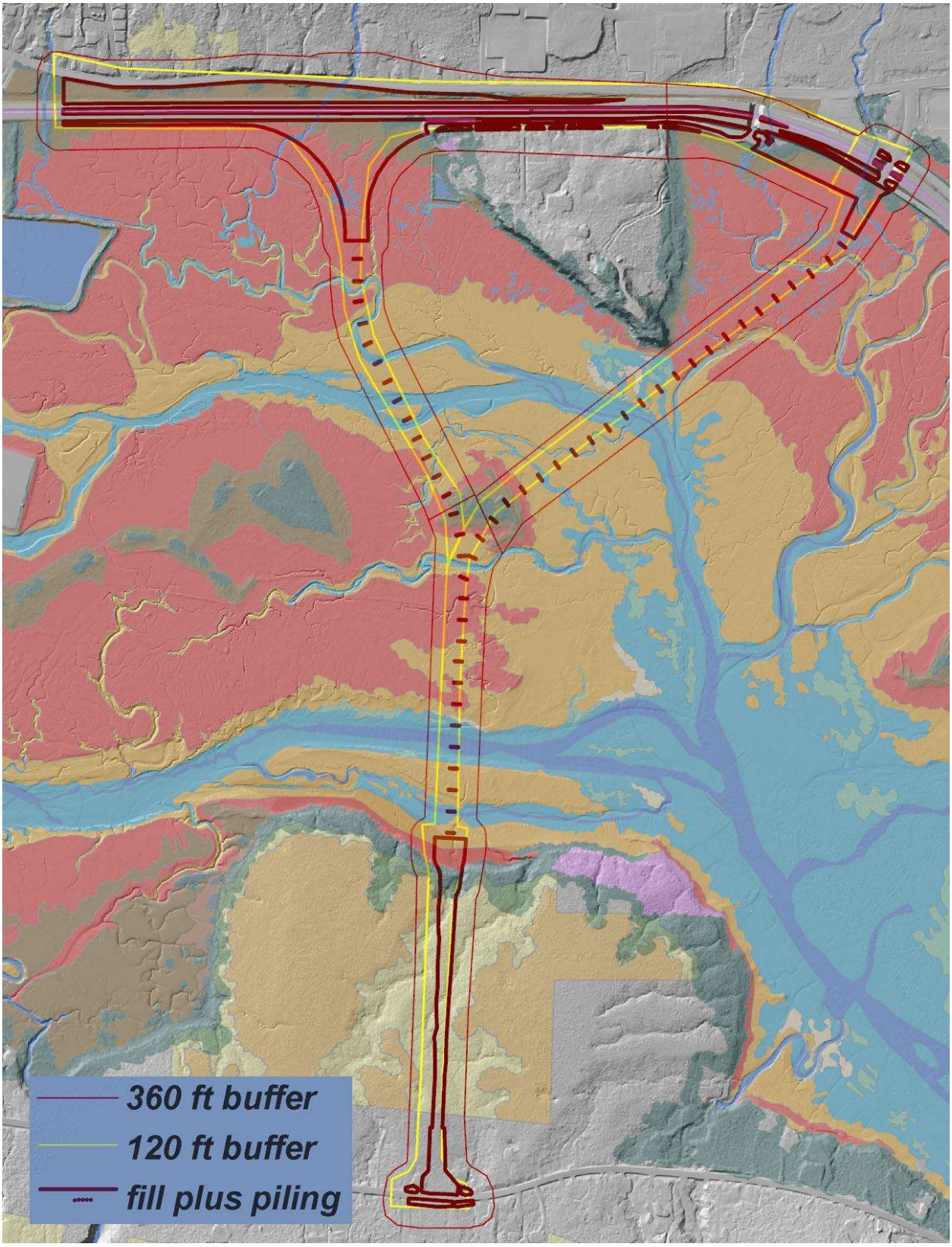


Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map

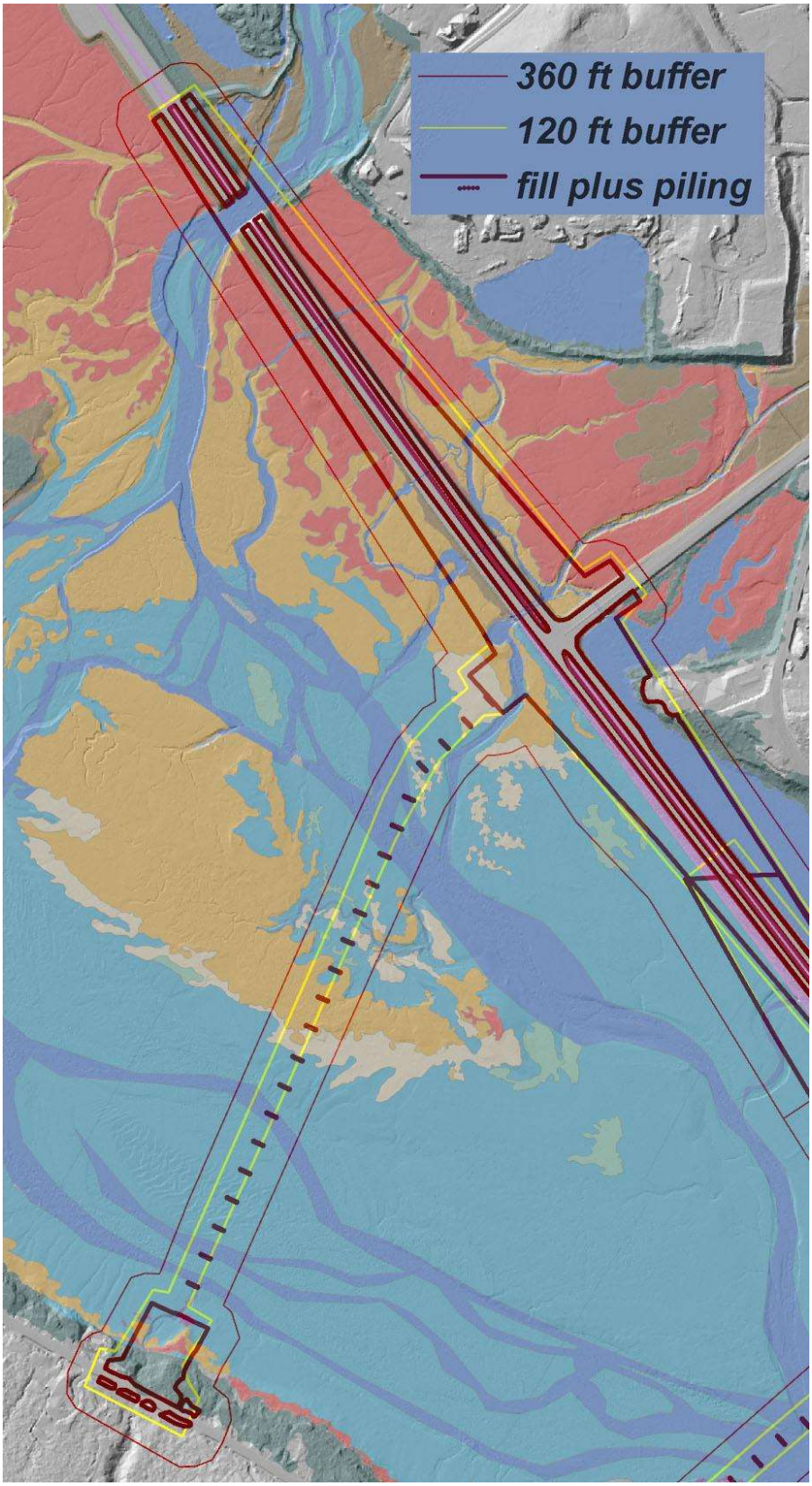


Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map

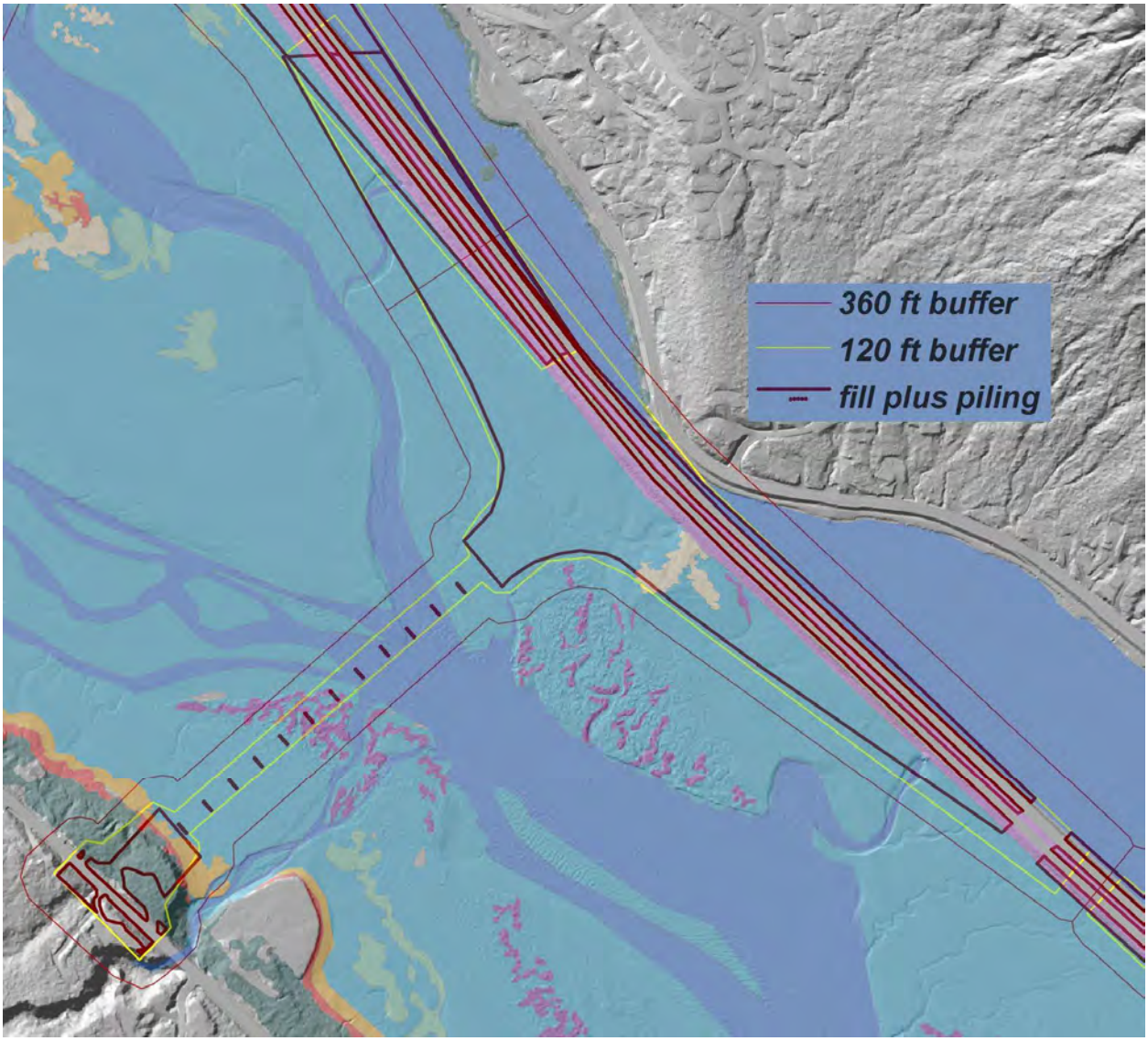
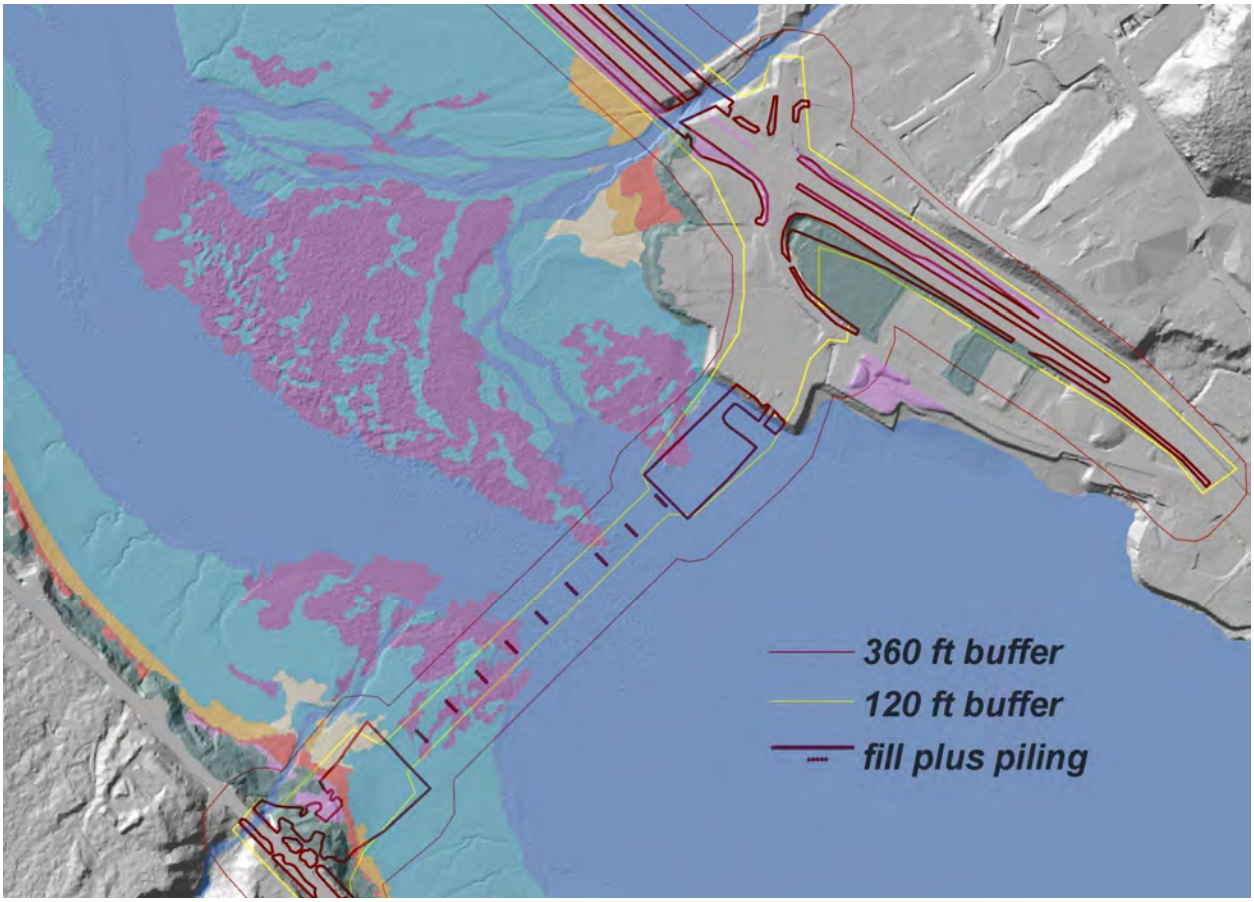


Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map



Impacts to Wetlands Owned and Stewarded by SEALT

All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.

It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.

The possible impacts from the most harmful remaining alternatives are summarized here.

Sunny Point East

The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

Sunny Point West

The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.

Salmon Creek

The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.

Mendenhall Peninsula

The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.

SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.

Impacts to Bird Habitat Not Considered by DOWL

All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.

Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.

It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.

The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.

The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.

The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.

The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.

The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.

It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.

For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.

eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.

"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.

Salmon Creek

The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck

hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.

Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the delta-edge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).

Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.

Twin Lakes

The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for

Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).

The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.

The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.

Vanderbilt

The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or "Pioneer") marsh, noted

above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).

The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).

The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this little-disturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).

The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area’s function as “refuge within the refuge” would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.

Sunny Point East, Sunny Point West

The Level 2 Screening bird habitat rating of the Sunny Point East alignment is “0” - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys,

but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).

The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.

The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.

In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.

At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at

Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).

With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.

Mendenhall Peninsula

The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Amstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.

Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.

It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud,

barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.

The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow's and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Red-breasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a "floating boundary."

To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).

To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as "second tier" hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually "top tier"), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).

On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a "top winter season hotspot" with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)

Miscellaneous Issues

Aviation Safety Resulting From Impacts to Bird Habitat

Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.

Impervious Surfaces

Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.

Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.

Public Support

DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:

- Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.

- From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.
- In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.
- It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.

DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.

Costs and Mitigation

Costs

DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.

1. Did these estimates consider repairs to the existing bridge?
2. How will maintenance change for existing roads on the mainland and Douglas Island?
3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates?
4. Did the estimates consider additional lanes for a new bridge as part of this?
5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?

Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.

Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.

Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.

Mitigation

The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.

As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.

SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate

criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.

While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.

However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report:

1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands.
2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly.
3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.

Conclusions and Recommendations

Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.

Outstanding Concerns

- The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.
- “Avoid, minimize, and mitigate negative impacts to the environment” should be a core goal of the PEL Study rather than an “additional goal”.
- The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without

vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.

- The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.

Additional Criteria

Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.

1. **"Low Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
2. **"High Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
3. **Fishing (Social)** - impacts to sport fishing according to ADF&G
4. **Hunting (Social)** - impacts to waterfowl hunting according to ADF&G
5. **Recreation (Social)** - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation
6. **Cultural Uses (Social)** - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests
7. **Aviation Approaches (Safety)** - impacts to aircraft approaches according to FAA
8. **Aviation Facilities (Safety)** - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA
9. **Navigability of Gastineau Channel (Safety)** - impacts to navigability for each alternative according to USCG
10. **Mitigation Site Replacement (ROW)** - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures
11. **Protected Lands Replacement (ROW)** - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures

Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini.

Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.

Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.

Ranking of Alternatives

The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.

1. No Build
    a. **All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex.**
    b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the far-reaching material impacts to those resources from bridge construction in a cost-benefit analysis.
    c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement.
    d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.
2. Salmon Creek
    a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points

b. Minimal functional impacts to SEALT mitigation sites
c. Fewer regulatory and permitting requirements for impacts to protected resources
d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek
e. Lower mitigation costs
f. Shortest intertidal crossing and use of existing interchange reduce impacts

3. Twin Lakes
    a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant
    b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources
    c. Would shut down important waterfowl hunting areas on the Refuge
    d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini
    e. Moderate to high mitigation costs
4. Vanderbilt
    a. More damaging to salt marsh, habitat connectivity, and Refuge integrity
    b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area
    c. Moderate functional impacts to SEALT mitigation sites
    d. Would shut down important waterfowl hunting areas on the Refuge
5. Mendenhall Peninsula
    a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex
    b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts
    c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.
6. Sunny Point West
    a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.

d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.

7. Sunny Point East
    a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.
    d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
    e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration.

Recommendations to PEL Study Team and Future Second Crossing Project Reviewers

- In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.
- The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.
- This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.

Citations

Alaska Shorebird Group. 2019. Alaska Shorebird Conservation Plan. Version III. Alaska Shorebird Group, Anchorage, AK.

Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003, Juneau Audubon Society and Taku Conservation Society, 2004. Juneau, AK.

Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hermans, Marge, 2009. The Mendenhall Wetlands: An Important Bird Area, Nature Alaska Images, Juneau, AK.

Bosworth Botanical Consulting. 2024. SEALT Habitat Mapping and Assessment Project Report (Draft, Proprietary). Juneau, AK.

Bosworth Botanical Consulting. 2024. SEALT Taashuyee-Chookan.ani Wetland Functional Assessment Report (Draft, Proprietary). Juneau, AK.

eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, NY. Available: http://www.ebird.org.

26. Southeast Alaska Watershed Coalition

From: Morgan McCammon
To: Rebecca Bellmore
Cc: Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Jovie Garcia; Lockwood, Gregory K (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Talli Vittetoe; Theresa Dutchuk; Bridget LaPenter; Denise Koch
Subject: RE: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
Date: Wednesday, March 20, 2024 10:31:09 AM
Attachments: image002.png
image003.png

Good morning, Rebecca,

Thank you for sharing your initial comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Rebecca Bellmore <rebecca@sawcak.org>
Sent: Friday, March 15, 2024 4:30 PM
To: Margaret Custer [redacted] >
Cc: Linda Shaw - NOAA Federal [redacted] >; Morgan McCammon <[redacted] >; Daugherty, Leslie K (DOT) <[redacted] >; [redacted] ; Purves, Nathan A (DOT) <[redacted] ; Lindgren, Jesse W (DFG) [redacted] >; Meitl, Sarah J (DNR) <[redacted] >; Lynae Craig <[redacted] >; [redacted] kbitslarson <[redacted] ; Spencer, Karl [redacted] Daniel King [redacted] Matt Robus [redacted] ; Matt Little [redacted] >; Dave Hanna <[redacted] >; Alaska Concrete Casting [redacted] >; Heidemann, Marie E (DOT) [redacted] ; Gentemann, Christy D (DOT) [redacted] >; Lockwood, Gregory K (DOT) <[redacted] >; Kolwaite, Douglas S (DOT) <[redacted] >; Taylor, Jill A (DOT) <[redacted] Katie Koester [redacted] >; Bridget LaPenter [redacted] ; Irene Gallion <[redacted] v>; Steven Noble [redacted] Renee Whitesell [redacted] ; Jovie Garcia [redacted] >; Theresa Dutchuk [redacted] ; Ryane Gray [redacted] ; Marella Gungob <[redacted] >; Michael Horntvedt [redacted] >; Mike Hall [redacted] ; Denise Koch [redacted] >; Keller, Nina (DOT) [redacted] >
Subject: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Please see below for our initial comments on the PEL level 2 draft scoring (letter also attached).

Thanks,

Rebecca Bellmore

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

Issue 1. Environmental Data Accuracy and Completeness for Impact Assessment

The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
- Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)
- Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.
- Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?

Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

Issue 2. Level 2 Score Weighting

With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

- PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.)
- North Douglas Connection
- Environmental impacts
- Safety (include airport, Coast Guard)
- Residential impacts

- Visual, cultural, scenic identity
- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
- Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves)
- Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties)
- Social impacts (add recreation impacts)
- Cost
- Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)

Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.

Issue 3. Negative scoring on No Build Alternative, and zero scoring on impacts.

The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

Rebecca Bellmore
Science Director
Southeast Alaska Watershed Coalition
[redacted]
www.alaskawatershedcoalition.org

On Thu, Mar 14, 2024 at 12:41 PM Margaret Custer[redacted] > wrote:

> Hello Morgan and team,
>
> I would like to request that the Technical and Stakeholder Advisory Committees be provided at least two additional weeks to review and comment on the large volume of materials shared with us. A three-week deadline to provide meaningful feedback on hundreds of pages of detailed reports and scoring tables is just not enough.
>
> The PEL Study timeline has been extended multiple times to accommodate DOWL's needs such that we have now entered year 3 of the study, and it would be appropriate to extend it just once for the advisory committees. Can the deadline for comments from the TAC & SAC be extended until April 11 at the earliest, or ideally April 25, so that the agencies and stakeholders have adequate time to provide the advice that has been requested?
>
> Thank you,
>
> Margaret Custer, Executive Director
> [redacted]
> We live and work on Lingít Aaní. We strive to be consistent with and supportive of the stewardship of these lands by the Indigenous people of the region, recognizing that they have long cared for these lands and their living resources. Aatlein gunalchéesh.

On Tue, Mar 5, 2024 at 8:02 AM Linda Shaw - NOAA Federal <[redacted] > wrote:

> Hi Morgan and all,
>
> I just became aware of this mapping data source for coastal resilience and fish and wildlife resources called the Coastal Resilience Evaluation and Siting Tool (CREST), that includes layers for the area of the Juneau Douglas Second Crossing as another source of information for evaluating the project.
>
> Here is the link.
>
> https://resilientcoasts.org/#Home
>
> There is an Alaska tab to navigate to Juneau-Douglas and additional information on the data layers.
>
> Linda
>
> **Linda Shaw (she | her)**
> *Wildlife Biologist, Alaska Region*
> NOAA Fisheries | U.S. Department of Commerce
> Office: [redacted]
> https://www.fisheries.noaa.gov/region/alaska

On Fri, Mar 1, 2024 at 4:35 PM Morgan McCammon [redacted] > wrote:

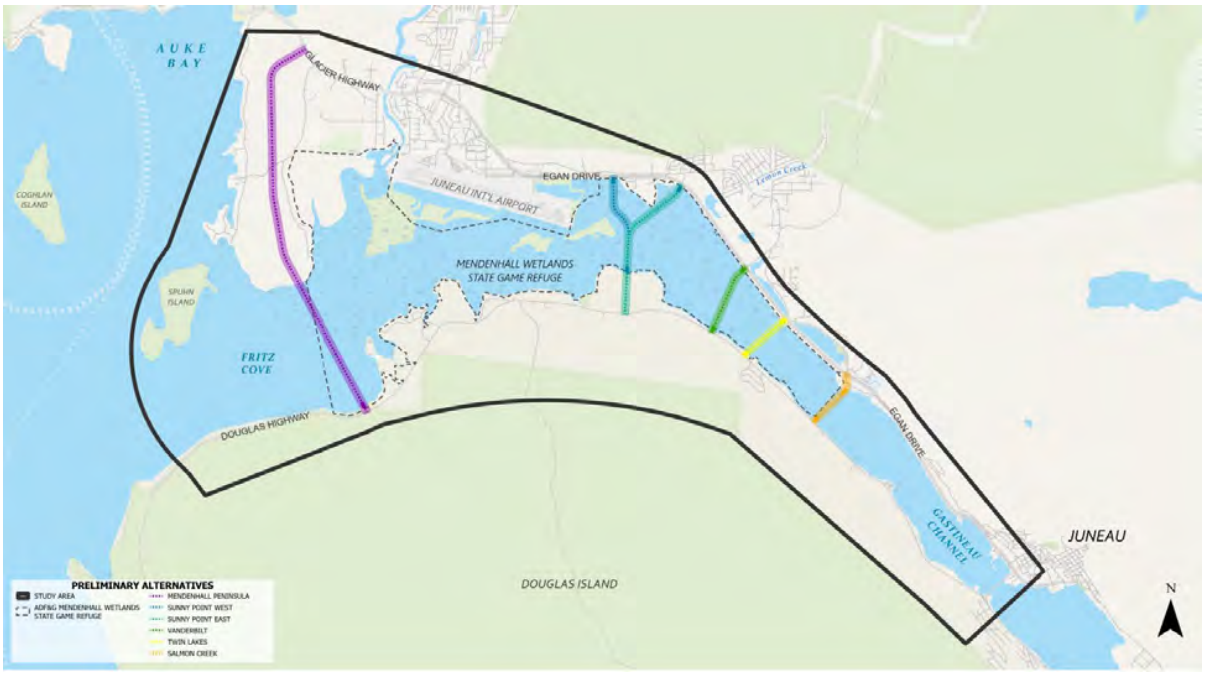
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

DOWL
[redacted]
dowl.com

From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: [redacted] Irene Gallion [redacted] >; Steven Noble [redacted] Renee Whitesell [redacted] >; Jovie Garcia [redacted] Theresa Dutchuk [redacted] Ryane Gray [redacted] >; Marella Gungob < [redacted] >; [redacted] >
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL
[redacted]
dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To: [redacted] Lindgren, Jesse W (DFG) [redacted] >; Meitl, Sarah J (DNR) [redacted] Lynae Craig [redacted] kbitslarson <[redacted]

[redacted]
[redacted], Spencer, Karl [redacted]
[redacted] 'Daniel King' <[redacted]; Matt Robus <[redacted]; Matt Little [redacted];
Dave Hanna [redacted]; Alaska Concrete Casting [redacted]
Cc: [redacted]; Irene
Gallion <[redacted]; Steven Noble [redacted] Renee Whitesell [redacted]; Jovie Garcia [redacted]>; Theresa Dutchuk <[redacted] Ryane Gray
[redacted] Marella Gungob [redacted]>; Morgan McCammon [redacted]
[redacted]
Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

March 15, 2024

Re: PEL Level 2 Draft Scoring

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

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The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
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Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

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With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

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- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
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The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming

lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

27. The Heart of Juneau Website

https://heartofjuneau.org/ - Information from September 27, 2024

DATE	ITEMS	PAGE
3/2/2023	Southeast Alaska Land Trust Comments to the Public Works and Facilities Committee	685
8/18/2023	Ducks Unlimited	688
12/14/2023	Draft Juneau International Airport Board of Directors Letter	690
4/2024	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments	693
8/2024	August 2024 Executive Summary of Outstanding Concerns from website organizers	751
8/8/2024	North Douglas Neighborhood Association Letter	753
9/27/2024	Screenshots of an article on www.backcountryhunters.org	755
9/27/2024	Screenshots of an article on ak.audubon.org	756
Undated	Sunny Point Neighborhood Association 2nd Channel Crossing Comments	757

From:	Krista Garrett
To:	boroughassembly@juneau.gov
Bcc:	krista@sealt.org; margaret@sealt.org
Subject:	SEALT Comments for 3/2 Public Worksession on Juneau North Douglas Crossing Project
Date:	Thursday, March 2, 2023 2:31:29 PM
Attachments:	2023-02-28 SEALT Statement on Second Crossing.pdf

To the Public Works and Facilities Committee:

The Southeast Alaska Land Trust (SEALT) appreciates this opportunity to provide feedback regarding the Juneau-Douglas North Crossing project and Planning and Environmental Linkages (PEL) study. SEALT will submit brief in-person comments at the March 2, 2023 public worksession, and provides this letter and attached statement as a detailed supplement.

SEALT owns and stewards 22 conservation properties immediately adjacent to the Mendenhall Refuge State Game Refuge (Refuge) and several of the preliminary alternatives considered by the PEL study cross directly through these conservation properties. The majority of these properties were acquired as mitigation sites to provide compensatory mitigation for Refuge wetlands lost during the Juneau airport's expansion in 2009.

While SEALT does not oppose the establishment of a second crossing, the habitat and recreation values of the Refuge, as well as the necessity of avoiding SEALT's wetland mitigation sites, should eliminate from consideration all crossing locations within the Refuge's boundaries.

Please find attached SEALT's public statement regarding this project, which outlines our interest and role as a stakeholder. Additionally, we have summarized below the comments we previously provided to the PEL Study.

Mitigation Sites for the Juneau Airport

SEALT is an approved mitigation sponsor with the U.S. Army Corps of Engineers (USACE) and has operated an in-lieu-fee program in Southeast Alaska since 1998, providing compensatory mitigation services to developers seeking permits for projects that result in a loss of aquatic resource functions. SEALT's mitigation services are provided through voluntary transactions with willing landowners.

In 2009, SEALT provided wetland mitigation credits to the City and Borough of Juneau to compensate for the loss of aquatic resource functions resulting from the Juneau International Airport expansion into the Refuge. This required compensatory mitigation was outlined in the 2009 Department of the Army permit POA-1981-320-M22 and 2007 Juneau International Airport Final EIS and Section 4(f) Evaluation.

Since 2009, SEALT has used the in-lieu fee generated by the Juneau Airport expansion project to acquire private parcels adjacent to the Refuge as wetland mitigation sites. The SEALT mitigation sites around the Refuge were chosen for the Juneau Airport expansion's impacts specifically because they were the most appropriate in-kind mitigation, as their proximity and function matched the impacted aquatic resources.

Impacts to these mitigation sites would irreparably harm the Mendenhall Wetlands ecosystem and

negate the in-kind compensatory mitigation completed for the Juneau Airport expansion. There are very few properties adjacent to the Refuge that would match the aquatic resource functions of the existing mitigation sites. For this reason, impacts to SEALT's mitigation sites would be nearly impossible to adequately mitigate.

Fragmentation Concerns

Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge. Examples of the impacts of fragmentation include:

Refuge Users: A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area, including the likely prohibition of waterfowl hunting (a key reason for the Refuge's establishment) and the loss or restriction of access from established public access points.

Hydrodynamics: The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's hydrodynamic connectivity and continued functionality as a globally significant estuarine wetland.

Viewshed: The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. This viewshed should be preserved in addition to its rare, unique, and irreplaceable environmental values.

Noise: Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Conclusion

The Southeast Alaska Land Trust cannot support the PEL Study's preliminary alternatives that impact SEALT mitigation sites and/or the Mendenhall Wetlands State Game Refuge, including: "North Airport", "Sunny Point Area A", "Sunny Point Area B", and "Vanderbilt". These alternatives should be removed from consideration.

SEALT encourages the PEL Study to focus on preliminary alternatives that do not impact the Refuge, including: "Salmon Creek", "Eagle Creek", and "Downtown".

With careful study and design, the "Mendenhall Peninsula" alternative could be located and constructed in a way that would not impact mitigation sites or the Refuge.

While SEALT welcomes necessary development for the community of Juneau, the Refuge and our adjoining conservation properties are not suitable locations for a Juneau-Douglas North Crossing.

Thank you for taking the time to review our comments. We will continue to participate as a member

of the PEL Study's Technical Advisory Committee, and are available to answer questions and collaborate on how to achieve the best possible alternative.

--

Krista Garrett
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Conservation Director

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Juneau, Alaska 99811-2500

August 18, 2023

Re: Juneau Douglas North Crossing PEL Study

Dear Director Goines,

Please accept these comments on behalf of Ducks Unlimited for the Juneau Douglas North Crossing PEL Study, a proposal to provide a second bridge crossing between Juneau and Douglas Island. The Level 1 Screening Report of March 2023 identified five alternative crossings for the proposed bridge. Four of these alternatives crossed the Mendenhall State Game Refuge, while the fifth alternative lies just outside of the Refuge's eastern boundary.

The 4,000-acre Mendenhall Refuge was established in 1976 and is located within the Gastineau channel. It was created, in part, due to public concerns over the ongoing loss of estuarine habitat in the channel. The purpose of the Refuge "is to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation (1990 Refuge Final Management Plan). It has succeeded in both those goals as it supports thousands of waterfowl each spring and fall, and provides over 2,000 waterfowl hunter-days each year.

Providing accessible hunting opportunities near population centers like Juneau is important. Hunters contribute significantly to conservation funding in Alaska through license sales and excise taxes on the sale of firearms and ammunition, made possible by the Pittman Robertson Act of 1937. Through these funds, Alaska receives the majority of their funding for state wildlife management and conservation work. Importantly, the PEL Study Report recognized that the Sunny Point alternative crosses the part of the refuge that is noted for the duck hunting opportunities it provides.

In addition to waterfowl, the Refuge supports over 200 species of birds. It also provides recreational opportunities outside of hunting including hiking, wildlife viewing and photography, boating, fishing and scientific and educational studies. Altogether, the refuge supports nearly 20,000 user-days to the citizens of Juneau.

One of the goals of the Mendenhall Refuge "is to minimize the loss of habitat due to fragmentation" (1990 Refuge Final Management Plan). Ducks Unlimited hopes the Department of Transportation and Public Facilities will consider a project alternative that meets that helps meet this goal and reduces the impacts on migratory birds and their habitats, while balancing the needs of the local community.

Thank you for the opportunity to comment and we look forward to reviewing future iterations of this important infrastructure project.

Sincerely,

Jeff McCreary
Director of Operations
Western Regional Office

1873 Shell Simmons Drive, Ste. 200, Juneau, Alaska 99801 · (907)789-7821

December 14, 2023

Ryan Anderson, Commissioner
Alaska Department of Transportation & Public Facilities
P.O. Box 112500
Juneau, AK 99811-2500

Steve Noble
Project Manager
DOWL
5015 Business Park Blvd., Suite 4000
Anchorage, AK 99503

Dear Commissioner Anderson and Mr. Noble:

RE: Juneau Douglas North Channel Crossing Project

Juneau International Airport (JNU) has been part of the Technical Advisory Committee (TAC) for the Juneau Douglas (JD) North Channel Crossing project since the project was resurrected a few years ago. JNU has submitted comments since the beginning of the PEL study requesting that the JNU airport approach corridors be protected. Because JNU's comments do not appear to have been included in the summary of comments, please use this letter as our formal comment on the JD North Crossing for options that could negatively impact JNU airport.

JNU has unique geography that does not lend itself to traditional airport approaches. Radar is not possible for JNU. Weather, wind and terrain present difficult approaches that historically resulted in many 'missed' approaches and cancelled flights into JNU. As a result of these challenges, Alaska Airlines and the Federal Aviation Administration (FAA) joined together to develop the first commercial application of Required Navigation Performance (RNP) to lower the minimums for ceiling and visibility under FAA-approved, proprietary procedures. Both Alaska and Delta now have these approved procedures for both Runways 08 and 26 at JNU. The lowest minimum approaches are down Gastineau Channel to Runway (RWY) 26, which means the approach corridors may be impacted by any permanent structure within the vicinity of a final approach to the JNU airport.

As of August 2023, the JD North Crossing Planning and Environmental Linkages (PEL) study, narrowed the crossing locations to five options:



On the west end, the Mendenhall Peninsula option, while unknown height, would require navigable heights for boats. This height would have to be considered for aircraft sequencing to land at JNU holding outside of Class D airspace during inclement weather or heavy traffic (float planes and small planes that hold/circle in this area).

On the east end, at final build, the Sunny Point option(s) may impact the approaches to RWY 26. The construction **WILL** impact the approaches to RWY 26 because any pilings/crane work will be an obstruction to airspace.

Further, JNU will be completing the RWY 26 Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) that will extend farther down the channel within the next couple of years. This important system will go out an additional 1600 feet (2400 feet from runway end) which will allow lower minimum approaches down the channel for both Alaska and Delta, which will result in even more safety and consistency for travelers.

The JD North Crossing proposal focuses on the immediate impact: how approaches are 'today'. This view will be shortsighted if it does not seriously consider where development will be in the next few years and beyond. Due to terrain, any future airport development (including runway extension, safety areas and approaches) would be to the east (down the channel). A bridge crossing at Sunny Point would more than likely impede this growth.

JNU supports a second bridge between Juneau and Douglas, however, has concerns about the location of a bridge in relation to maintaining airport approaches today and in the future.

The Juneau International Airport Board requests that the Juneau Douglas North Crossing not include an option that would negatively impact runway approaches and the safety of the airport and traveling public. The Board requests that the Mendenhall Peninsula, Sunny Point Options, and any other options that are found to conflict with airport approaches be eliminated from the study as non-viable options.

Sincerely,

Al Clough, Chair
Juneau International Airport Board of Directors

Copy: City & Borough of Juneau Assembly
Senator Jesse Kiehl
Representative Andi Storey
Representative Sara Hannan
Senator Lisa Murkowski
Senator Dan Sullivan
Congresswoman Mary Peltola
DOWL

SOUTHEAST ALASKA LAND TRUST

Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments

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PEL Study Process

These comments are provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee on April 11, 2024 in response to the request for comments on the application of Level 2 screening detailed in the Level 2 Draft Screening Results and the Level 2 Draft Impact Quantification Table that were presented at a March 7, 2024 JDNC PEL Study Joint Advisory Committee meeting.

SEALT has engaged in the PEL Study process since March 2022 by participation on the Technical Advisory Committee (TAC) and provides the following pieces of feedback related to the PEL Study's process and the data sources used to advance alternatives.

Technical Advisory Committee Engagement

SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. This is a lingering defect in the JDNC PEL Study Process in two ways:

- PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.

- The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.

Quality of Information and Expertise

In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.

For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.

The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.

Overview of PEL Study Field Work

Reports from DOWL and Parametrix Field Work

In September 2023, the PEL Study team announced to the TAC that the PEL Study would add field work into the process for Level 2 Screening, with that field work commencing immediately. This feedback is in response to the reports generated by that field work and released to the TAC February 16, 2024:

- Wetland Delineation and Functional Assessment Report (February 2024)
- Intertidal Habitat Survey Report (December 2023)
- Bird and Habitat Surveys Report (January 2024)
- Tier 1 Eelgrass Delineation Report (February 2024)
- Bridge Volume Forecast Memo (February 2024)

Comments relating to these reports follow, with a standalone section for each prepared in the limited time that we have to provide comments before the PEL Study findings are synthesized from the reports.

SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports

It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.

The SEALT Habitat Mapping and Assessment Project includes two significant components:

1. A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and
2. A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.

The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing

alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.

Review of Wetland Delineation & Functional Assessment Report (Feb 2024)

SEALT Review of DOWL Wetland Field Survey Report

SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find no relation between the wetland survey report and the impact quantification matrix or scores and no functional assessment as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is no summary of the wetland acreage to be impacted by type and study alternative.

It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.

It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.

We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.

First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.

Tidal Wetland/Waters Delineation

Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water.

Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.

The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.

The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)

Freshwater Wetlands

Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals. It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for Hendrickson Point and the Mendenhall Peninsula corridor, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report and failing to include their own data in the Level 2 Scoring Table undermines the alternative screening process.

Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.

Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the "missed" area in DOWL's report has significant cover of rusty Menziesia, a shrub classified as "facultative upland" although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.

Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives' alignment crossing Hendrickson Point. Inappropriately considered "FACUP" ("facultative upland," usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands

surrounding open peatlands in our region such as those at Hendrickson Point. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.

Given the difficulties of delineation with the USACE's weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL's delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.

We observe, however, that DOWL's impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 ft areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to misrepresentation of project impacts and obscures what should be a shared information base.

Some of the "missed" areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from "impacted wetland acres" tallies used for comparing alternatives, so this omission is significant and concerning.

While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with

significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.

The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ's 2014 mapping were also missed along the Mendenhall Peninsula alignment.

SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.

Lack of Functional Assessments in DOWL's Work

The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.

The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.

The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL

has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.

SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.

Questions

1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?
2. What protocol will DOWL use?
3. Will the alternatives be re-scored using the functional assessments?
4. Will the functional assessments be completed before or after the public comment period opens?
5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?
6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?

Review of Intertidal Habitat Survey Report (Dec 2023)

The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: "This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."

SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.

The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft-wide alignment for each alternative, and with few habitat types.

While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:

- For example, the intertidal crossing distances given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.
- Low marsh acreage in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for high marsh as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)
- Special habitats mentioned in the report such as mussel/rockweed habitat, channels, and deltas that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.

Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).

High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for the report's "upper intertidal" category do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.

High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.

While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)

It might also be useful in this project area to map “wet high marsh” and/or “ponded high marsh” as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.

It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to -10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?

Review of Bird and Habitat Surveys Report (Jan 2024)

Bird Habitat

The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced

"model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.

Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.

DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.

The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.

The PEL bird habitat impact rating shows "0" for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.

How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from "hotspots". Is this another name for a nest, or are these bird concentration areas

identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound *if applied correctly* and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.

If the 2004 Hotspots are used instead, a 500-foot buffer does not adequately cover the areas referenced. The 'points' represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 9). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 Mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.

For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.

Fish Habitat

Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation.

Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."

Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.

These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.

In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. Every crossing alternative would disrupt one or more anadromous fish streams. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.

Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.

The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.

The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.

Mammal Habitat on Hendrickson Point

The mammals of the Mendenhall Wetlands have been observed in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.

The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.

SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.

The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.

The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.

Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor. While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.

Review of Tier 1 Eelgrass Delineation Report (Feb 2024)

Introduction

The “Introduction” starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.

While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report’s introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.

Previous Investigation

The “Previous Investigation” section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the “Previous Investigation” section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.

Methods

A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.

Results

The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For

the purpose of this review, a revised results table with the needed tidal information in italics is shown below.

Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Point alignment.

While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.

Correction for Table 2: Alignment Traverse and Tide Stage

Alignment	Date (2023)	Start Time	End Time	*Tidal Stage During Survey*		*Low Tide*
Mendenhall	September 28	6:01 PM	6:48 PM	Ebb	*~.5 to -1*	*(LT -1.38 at 7:17 PM)*
	September 29	5:12 PM	6:06 PM	Ebb	*~7 to 2.5*	*(LT -2.7 at 7:59 PM)*
Sunny Point W	September 29	9:23 AM	10:51 AM	Flow	*~2 to 10*	*(LT -2.29 at 7.33 AM)*
Sunny Point E	September 29	10:09 AM	12:09 PM	Flow	*~4.5 to 15+*	*(LT -2.29 at 7.33 AM)*
Vanderbilt	September 27	5:40 PM	5:48 PM	Ebb	*~1.5 to 1*	*(LT .49 at 6:32 PM)*
	September 28	8:16 AM	9:05 AM	Flow	*~0 to 2.5*	*(LT -2.11 at 6:53 AM)*
Twin Lakes	September 28	7:06 AM	8:03 AM	Flow	*~-2 to -.5*	*(LT -2.11 at 6:53 AM)*
	September 27	6:01 PM	~6:29 PM	Ebb	*~1 to .5*	*(LT .49 at 6:32 PM)*
Salmon Creek	September 27	~6:29 PM	6:40 PM	Flow	*~-1 to .5*	*(LT .49 at 6:32 PM)*
	September 28	9:06 AM	10:01 AM	Flow	*~2.5 to 7*	*(LT -2.11 at 6:53 AM)*

Maps

The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR.

The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.

The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto base maps are part of the SEALT project and may be requested by reviewing agencies.

While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.

In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.

- Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.
- The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.

- Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel.

Even with some eelgrass on the Falls Creek delta, the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.

Review of Bridge Volume Forecast Memo (Feb 2024)

DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores.

The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts. A summary:

- A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).
- After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.
- By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.
- The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.

It is unclear whether DOWL has analyzed whether these marginal benefits – for slight convenience more than anything else relating to traffic congestion or safety – justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.

Level 2 Screening: Process & Methodology

PEL Study Should Be Data- As Well As Process-Driven

- Well-defined and transparent public process
- Coherent and defensible data-based results
- Not meant to circumvent regulatory responsibilities
- Communication to and understanding by stakeholders and technical advisors

These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.

In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.

Screening Elements from 2022-2023 Missing in 2024

DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.

- "High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.
- For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.
- The score for "Important Migratory Bird Habitat Impacted" would have been determined by the acreage of habitat impacted by construction.

- For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.
- “Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.
- “Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.
- The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.

Scoring Methodology

No Build

We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.

However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.

Scoring a No Build alternative at 0 for criteria such as "Avoid, minimize, and mitigate negative impacts to the environment" is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.

Weighting the Criteria

It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.

Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.

The Need for Granularity

The scoring for the six Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.

The range of -2 to +2 lumps moderate impacts with severe impacts, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.

Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion "Avoid, minimize, and mitigate impacts to the environment" scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL's current scoring to see that difference.

In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).

Level 2 Screening: Conflicts Between Alternatives and Existing Plans

With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.

1. Mendenhall Wetlands State Game Refuge Management Plan: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
2. USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.
3. 2013 CBJ Comprehensive Plan:
    i. The alternatives located within the Refuge's boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
    ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive

Plan and significantly damage the visual, cultural, and scenic identity of the community.

iii. As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.

iv. Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.

4. Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
5. Marjory and Edgar Huizer Fishing Access Site Management Plan: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.
6. Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "…*may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until:*

   "(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an alternative other than a Sunny Point alternative; and

"(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record.
"Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law."

There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.

Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.

Impacts from Alternatives

SEALT's Functional Assessments

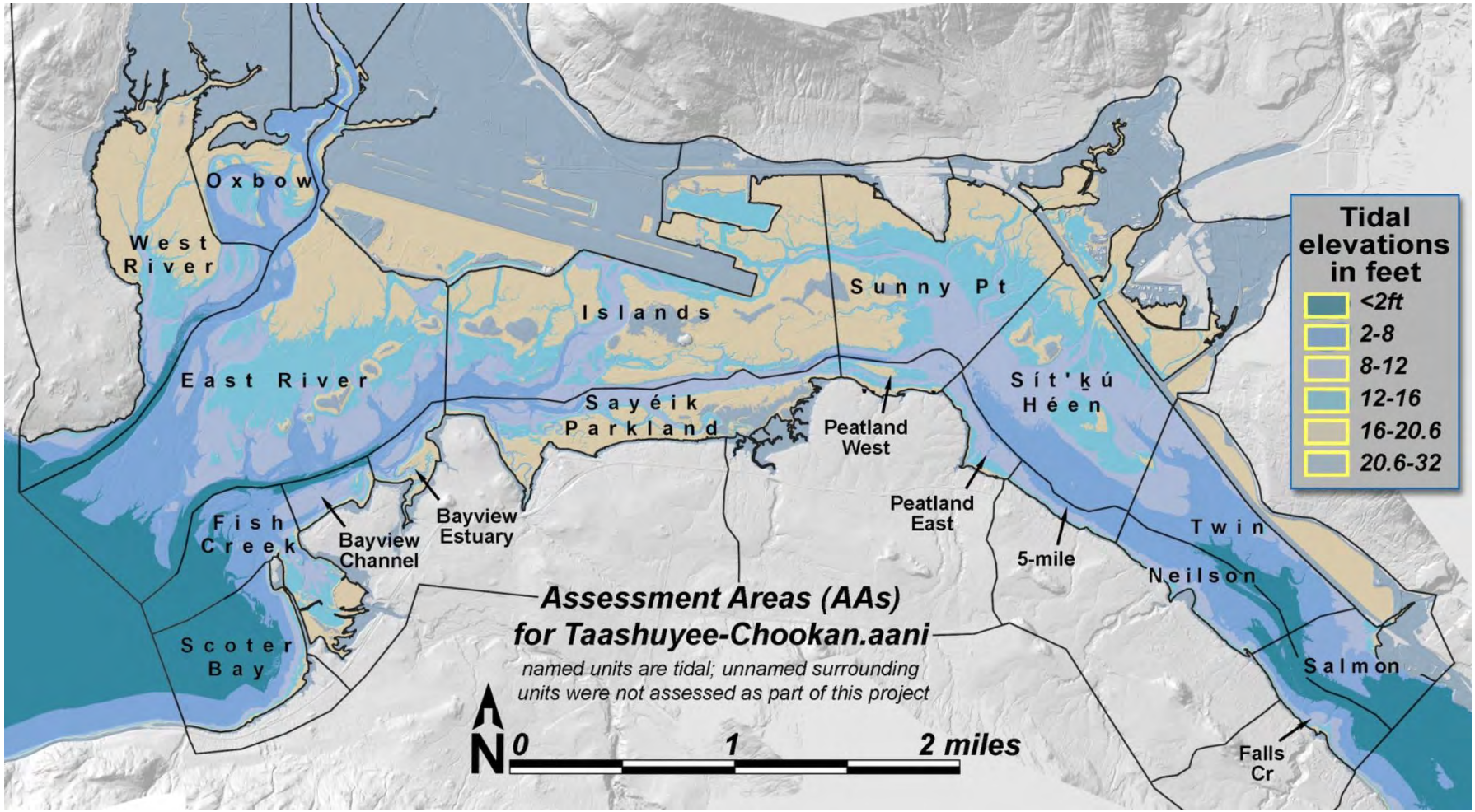
The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.

For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershed-based areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.

Table 1: WESPAK-SE Protocol - Functions and Values

Function or Attribute	Definition	Values
Sediment Retention & Stabilization	The effectiveness for intercepting and filtering suspended inorganic sediments thus allowing their deposition, as well as reducing energy of waves and currents, resisting excessive erosion, and stabilizing underlying sediments or soil.	Maintain quality of receiving waters. Protect shoreline structures from erosion.
Carbon Sequestration	The effectiveness for retaining both incoming particulate and dissolved carbon and converting carbon dioxide gas to organic matter (particulate or dissolved), and then retaining that organic matter on a net annual basis for long periods while emitting little or no methane.	Reduce risk of global climate change.
Organic Nutrient Export	The effectiveness for producing and subsequently exporting organic nutrients (mainly carbon), either particulate or dissolved.	Support food chains in receiving waters. Facilitate transfer of iron to marine waters.
Anadromous Fish Habitat	The capacity to support rearing or spawning habitat of fish species that migrate from marine waters into freshwater streams to spawn, e.g., coho/sockeye.	Support commercial, subsistence, sport, and ecological values. Infuse uplands with marine nutrients.
Waterbird Feeding Habitat	The capacity to support or contribute to an abundance or diversity of waterbirds that migrate or winter but do not breed in the region.	Support subsistence, sport, and ecological values. Maintain regional biodiversity.
Songbird, Raptor, & Mammal Habitat	The capacity to support or contribute to an abundance or diversity of native songbird, raptor, and mammal species and functional groups, especially those that are most dependent on wetlands or water.	Maintain regional biodiversity.
Native Plant Habitat	The capacity to support or contribute to a diversity of native, hydrophytic, vascular plant species, communities, and/or functional groups.	Maintain regional biodiversity and food chains.
Public Use and Recognition	Prior designation of the wetland, by a natural resource or environmental protection agency, as some type of special protected area. Also, the potential and actual use of a wetland for low-intensity outdoor recreation, education, or research.	Commercial and social benefits of recreation. Protection of prior public investments.
Subsistence and Provisioning Services	The “customary and traditional” uses of wild resources for various uses including food, shelter, fuel, clothing, tools, transportation, handicrafts, sharing, barter, and customary trade.	(this is an attribute, not a function or value).
Wetland Sensitivity	A wetland's lack of intrinsic resistance and resilience to human and natural stressors.	(this is an attribute, not a function or value).
Stress Potential	The degree to which a wetland is or has recently been altered by or exposed to, risk from factors capable of reducing one or more function, primarily human-related.	(this is an attribute, not a function or value).

Figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas



Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.

Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.

As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some Refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.

Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas

Crossing Site--	Mendenhall Pen.		Sunny Pt E and W		Vanderbilt		Twin Lakes		Salmon Creek	
Assessment Area--	W River	Scoter Bay	Sunny Pt.	Peatland Pt W	Sit Ku Heen	S Mile	Twin	Neilson	Salmon Ck	Falls Ck
WESPAK-SE overall	10.98 H	8.36 H	10.17 H	8.56 H	9.99 H	9.31 H	8.30 H	8.69 H	7.13 H	7.61 H
(vegetated tidal)										
waterbird feeding	10 H	10 H	10 H	10 H	10 H	10 H	10 H	10 H	9.71 H	10 H

Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.

While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.

The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by

the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the river mouth (and beyond) that would be affected by the Mendenhall crossing.

At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.

WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G-nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.

Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.

The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.

Impacts to Wetlands

False Precision in DOWL's Calculations

The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.

The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.

Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).

This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.

ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.

SEALT Calculations of Impacts to Habitat by Alternative

In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.

Figure 2: Acreage of Impacts by Alternative

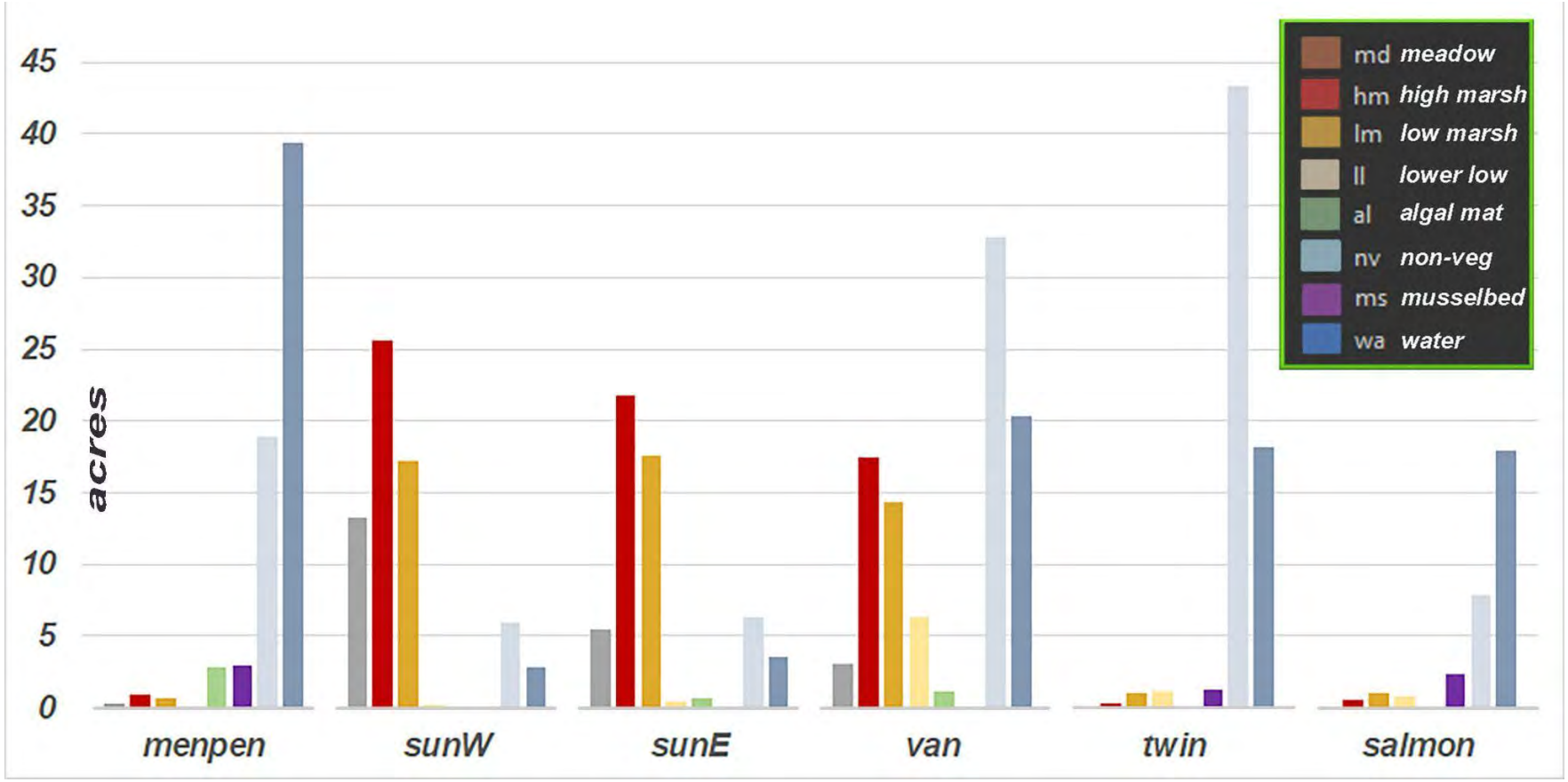


Figure 3: Percentage of Habitat Impacts by Alternative

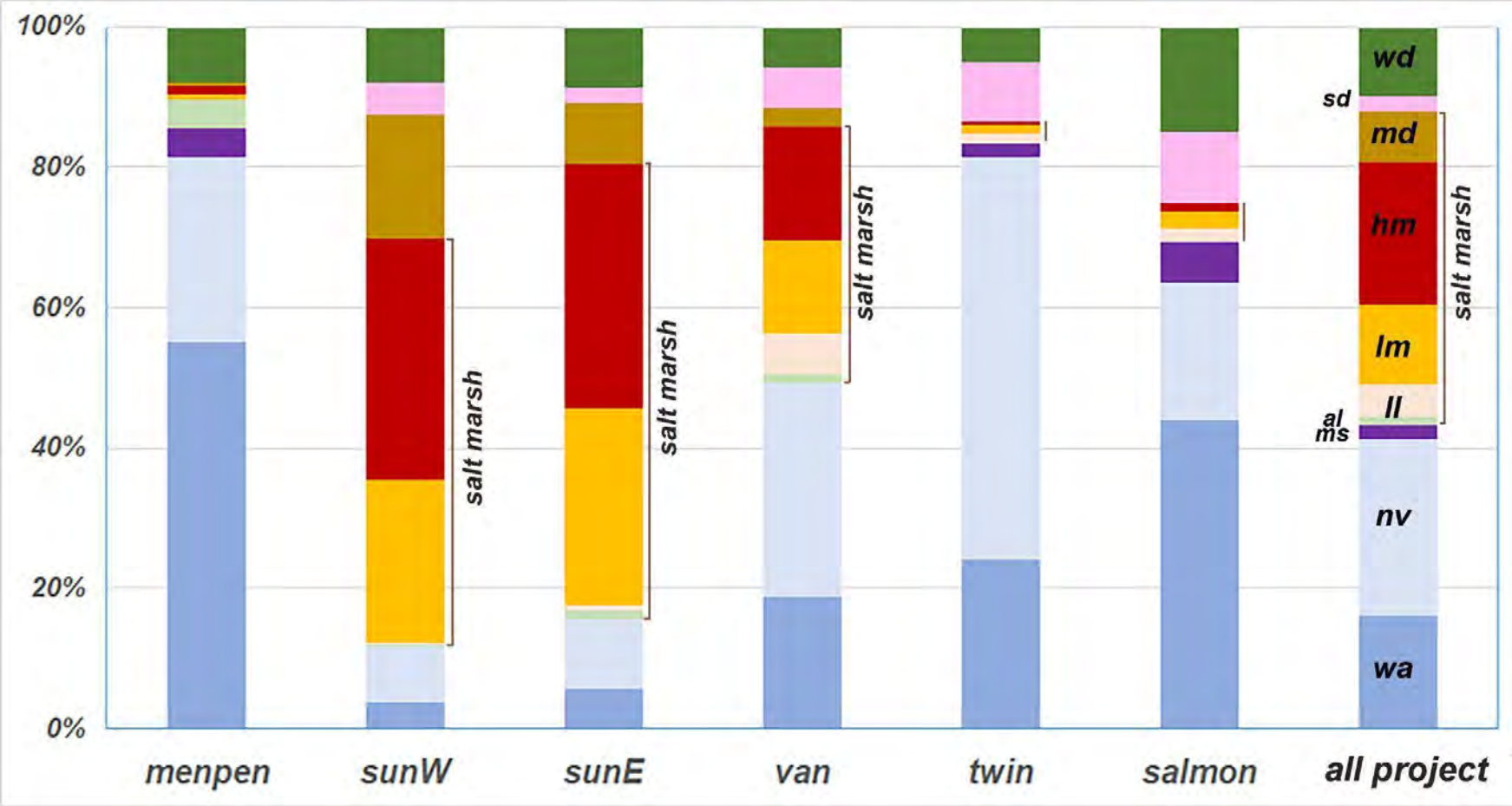


Figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map

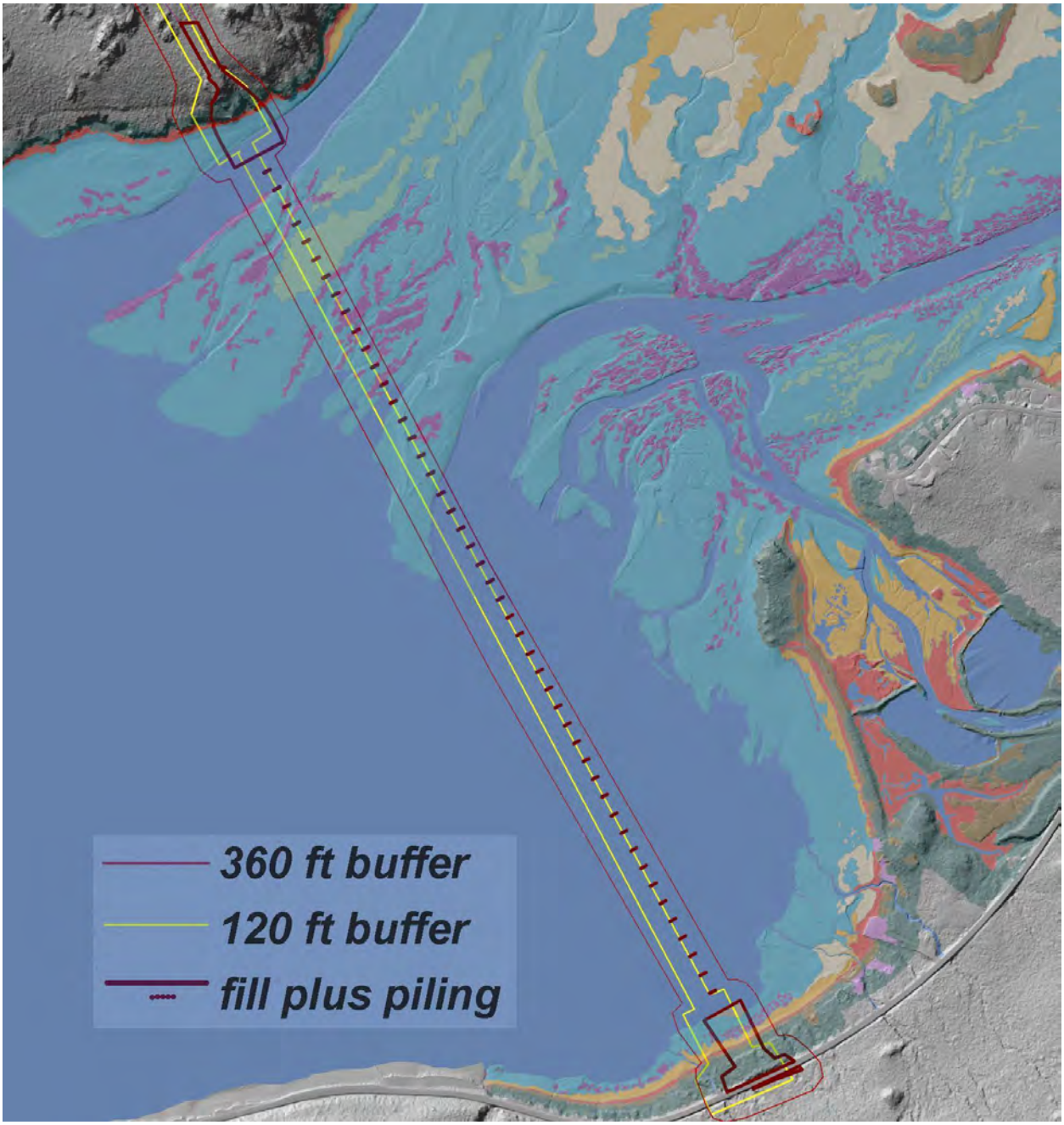


Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map

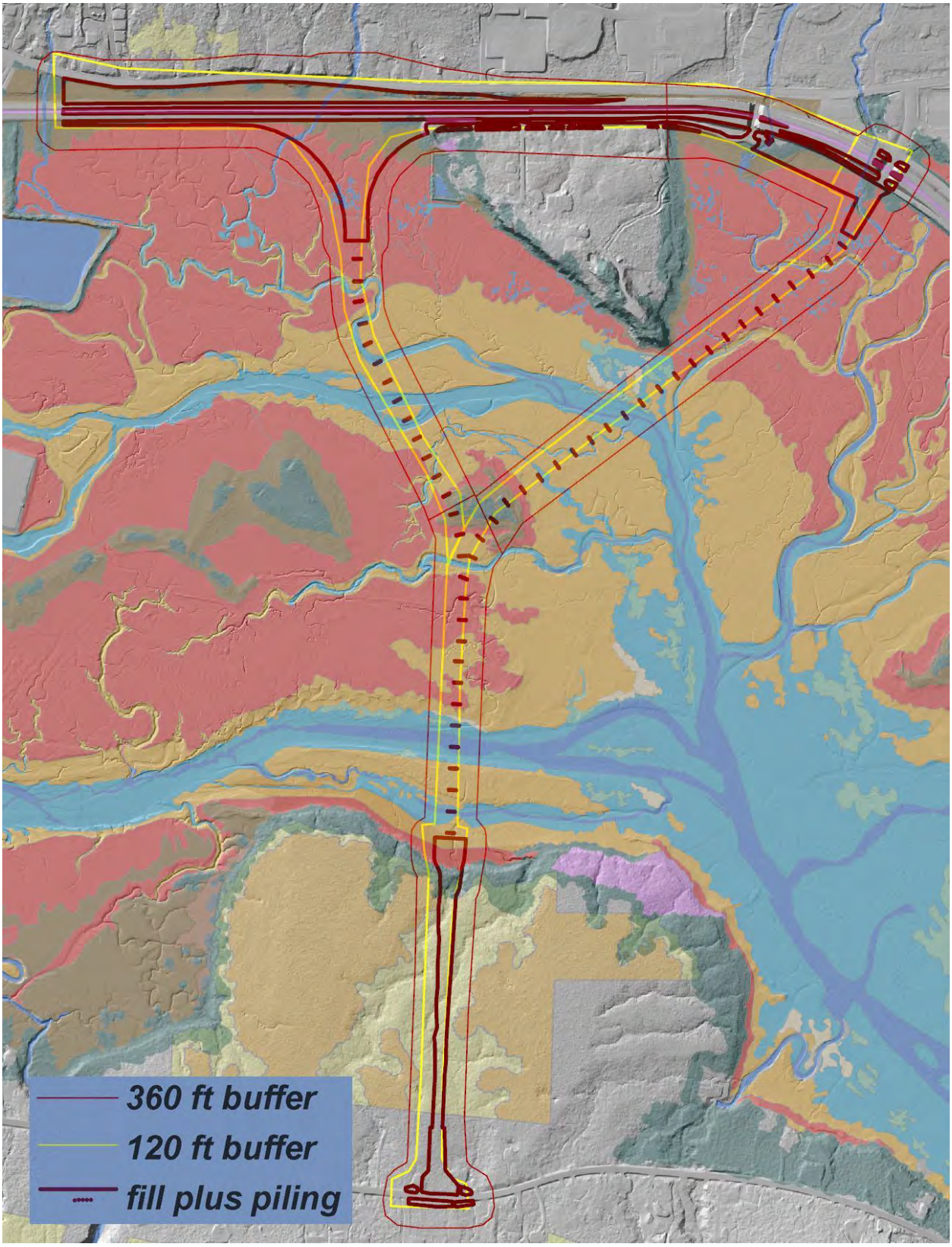


Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map

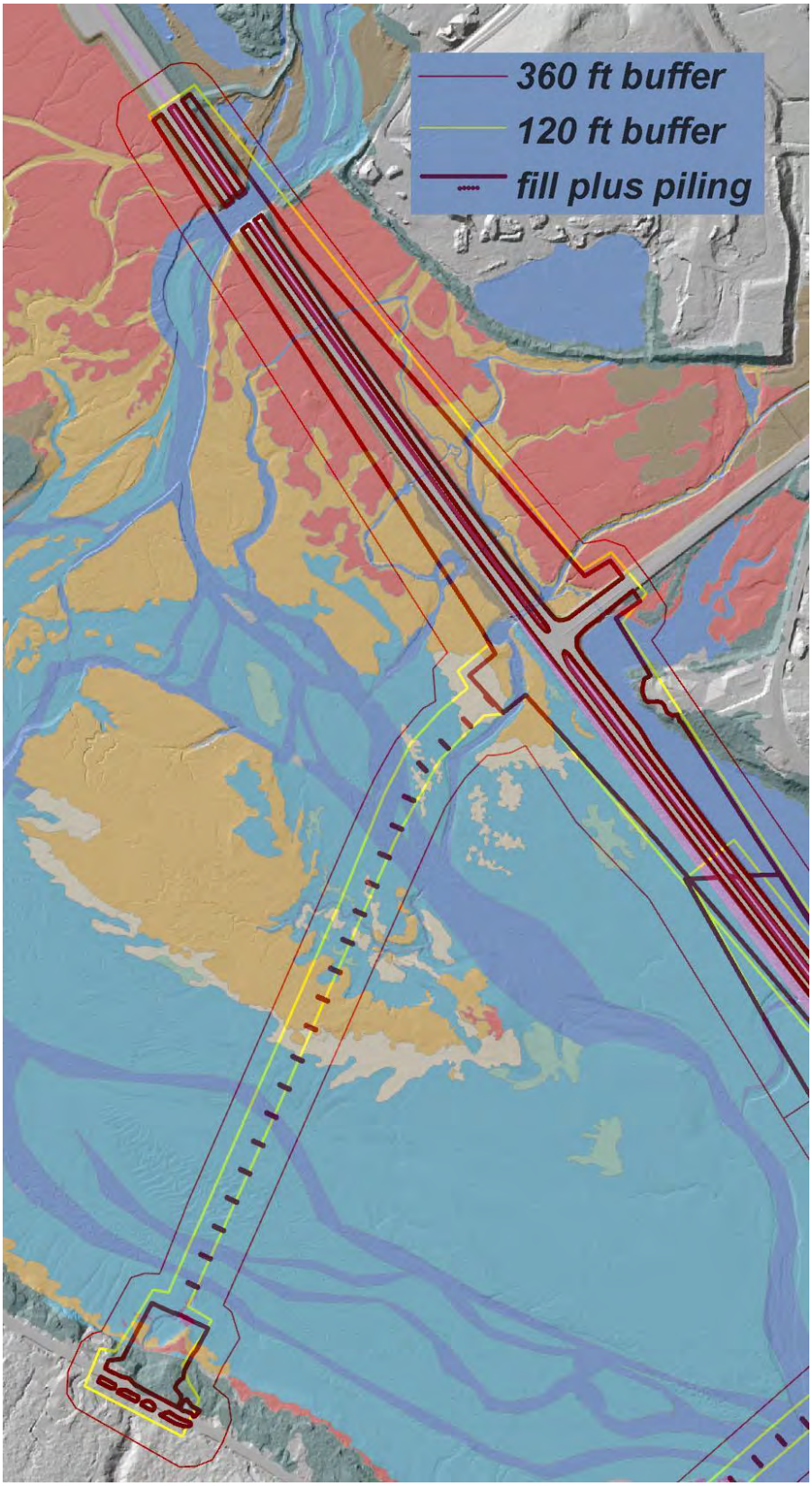


Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map

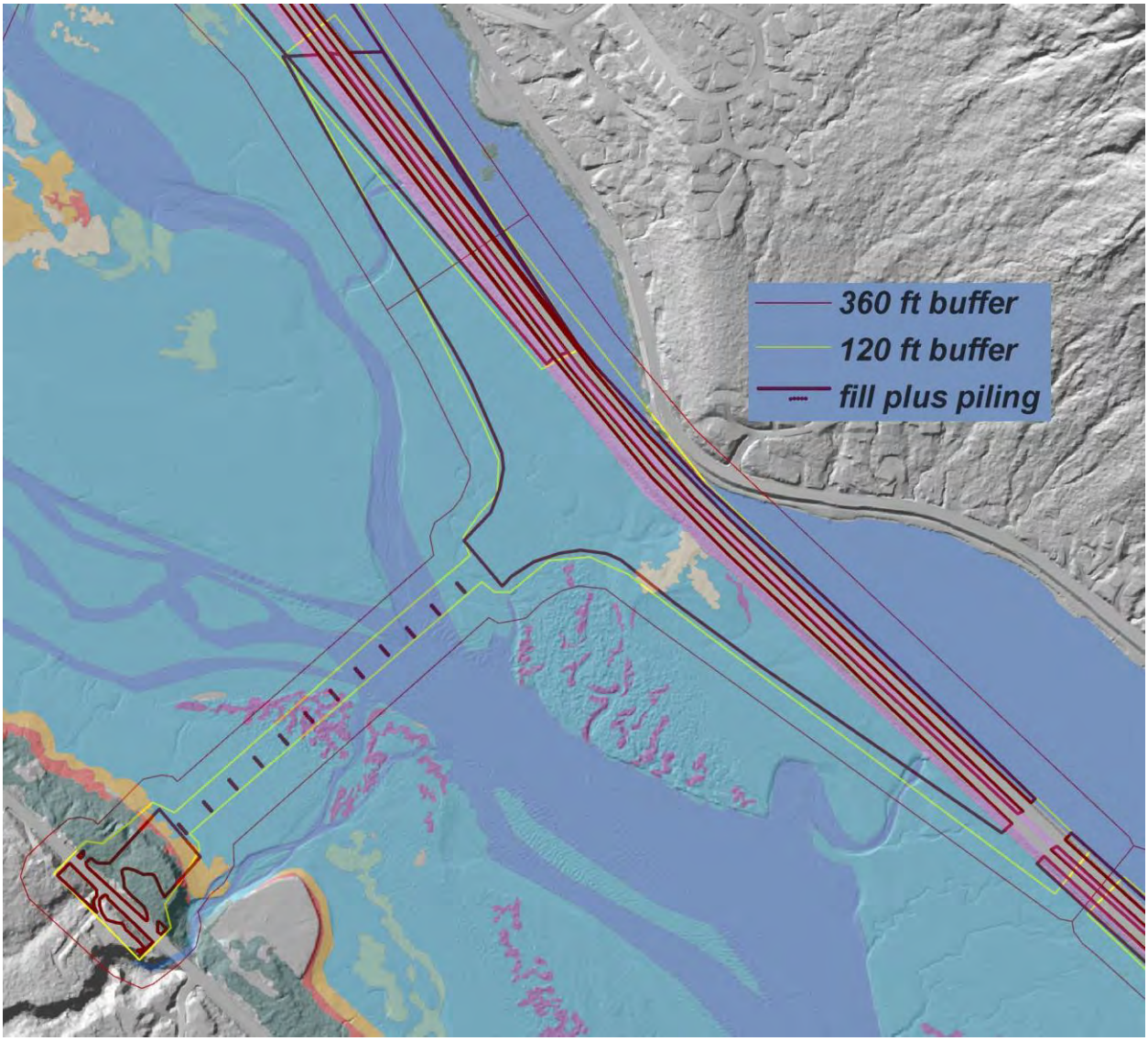
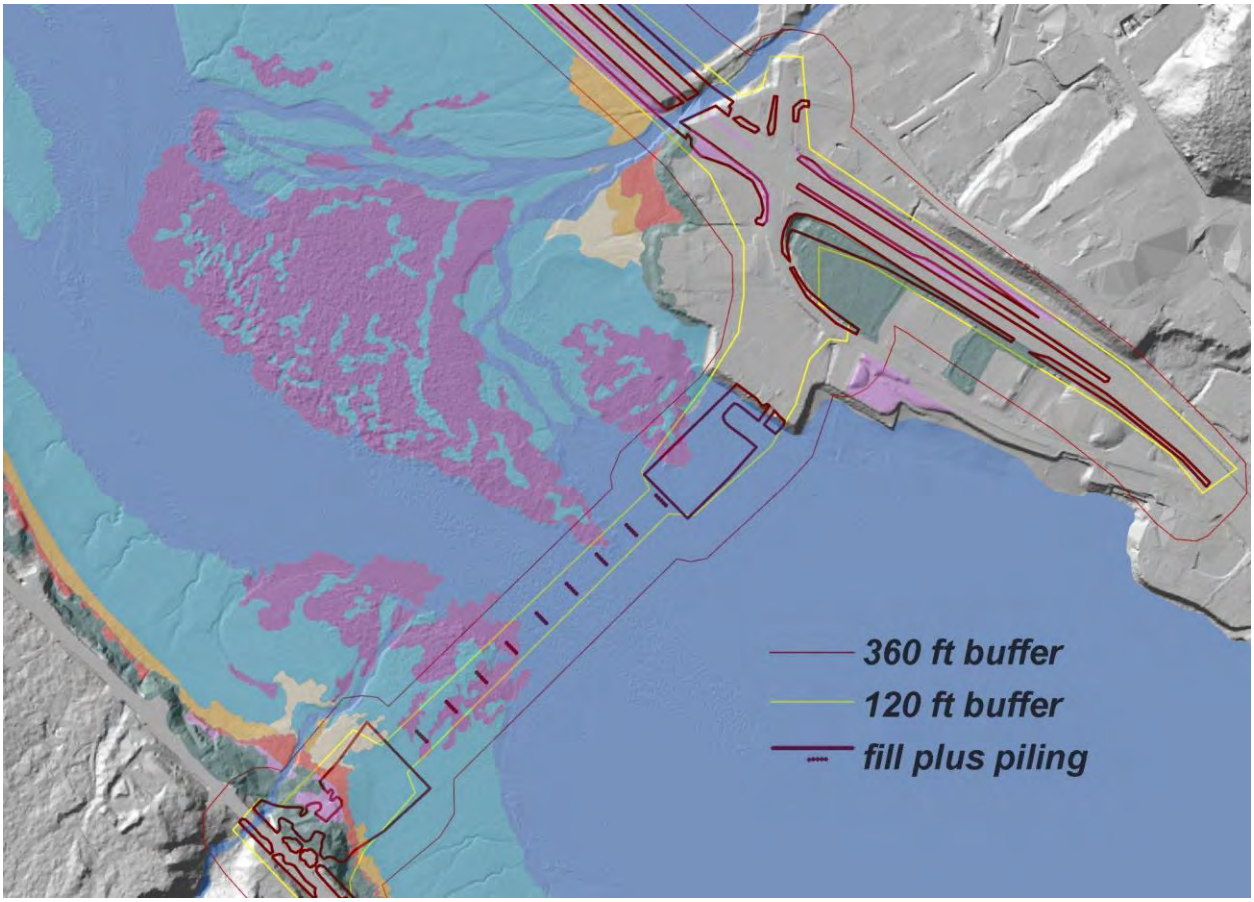


Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map



Impacts to Wetlands Owned and Stewarded by SEALT

All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.

It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.

The possible impacts from the most harmful remaining alternatives are summarized here.

Sunny Point East

The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

Sunny Point West

The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.

Salmon Creek

The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.

Mendenhall Peninsula

The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.

SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.

Impacts to Bird Habitat Not Considered by DOWL

All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.

Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.

It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.

The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.

The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.

The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.

The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.

The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.

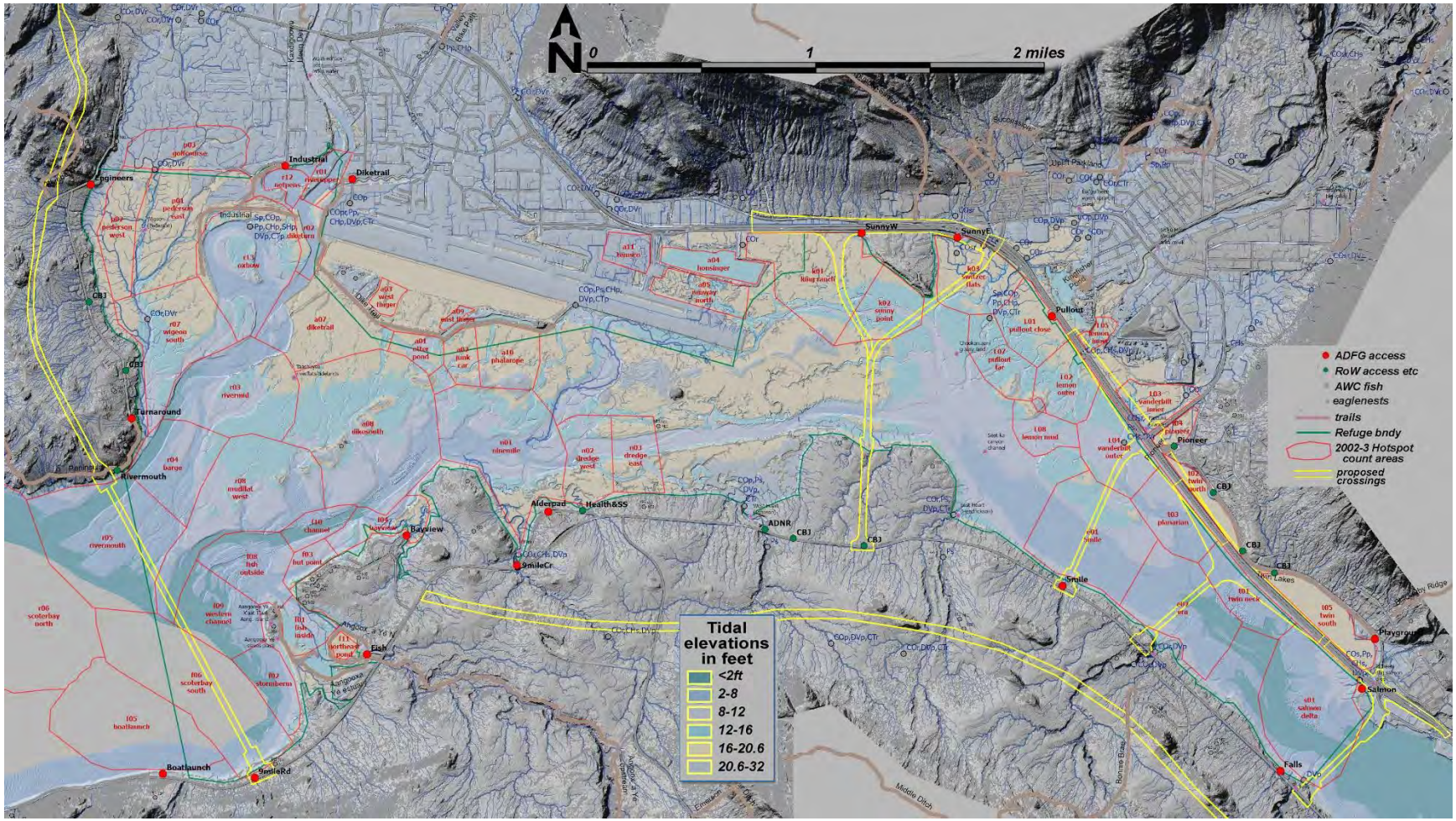
It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 Mile N Douglas, and parts of Twin Lakes.

For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.

eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the river mouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.

"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.

Figure 9: Trails, Access Points, and Bird Count Areas from “Hotspots” Report



Salmon Creek

The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck hunting and birding. Hotspots survey point s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.

Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the delta-edge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).

Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Creek delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.

Twin Lakes

The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).

The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.

The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.

Vanderbilt

The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or "Pioneer") marsh, noted above for use by dabbling ducks and Red-winged Blackbirds. Both are considered "nearby hotspots", where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).

The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt ("Pioneer") marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal "island" on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a "refuge within the refuge" for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal "island" (SEALT).

The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this little-disturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).

The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area's function as "refuge within the refuge" would be compromised. Mudflat and delta habitats providing

seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.

Sunny Point East, Sunny Point West

The Level 2 Screening bird habitat rating of the Sunny Point East alignment is "0" - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Armstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).

The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.

The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.

In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.

At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).

With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.

Mendenhall Peninsula

The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the river mouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Armstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.

Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining

the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.

It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The river mouth habitat includes sand, mud, barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the river mouth: 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.

The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow's and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Red-breasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a "floating boundary."

To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).

To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as "second tier" hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually "top tier"), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).

On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a "top winter season hotspot" with heavy use by dabbling ducks

(Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the Ninemile Refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)

Miscellaneous Issues

Aviation Safety Resulting from Impacts to Bird Habitat

Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.

Impervious Surfaces

Unless we missed calculations in the Level 2 impact quantification demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only accounts for some impervious surfaces added to the Juneau terminus.

Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.

Public Support

DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a

percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:

- Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.
- From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.
- In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.
- It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.

DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.

Costs and Mitigation

Costs

DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.

1. Did these estimates consider repairs to the existing bridge?
2. How will maintenance change for existing roads on the mainland and Douglas Island?

3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates?
4. Did the estimates consider additional lanes for a new bridge as part of this?
5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?

Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.

Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.

Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.

Mitigation

The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.

As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.

SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.

While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.

However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report:

1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands.
2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly.
3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.

Conclusions and Recommendations

Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.

Outstanding Concerns

- The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.

- "Avoid, minimize, and mitigate negative impacts to the environment" should be a core goal of the PEL Study rather than an "additional goal".
- The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.
- The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.

Additional Criteria

Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.

1. "Low Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh
2. "High Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh
3. Fishing (Social) - impacts to sport fishing according to ADF&G
4. Hunting (Social) - impacts to waterfowl hunting according to ADF&G
5. Recreation (Social) - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation
6. Cultural Uses (Social) - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests
7. Aviation Approaches (Safety) - impacts to aircraft approaches according to FAA
8. Aviation Facilities (Safety) - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA
9. Navigability of Gastineau Channel (Safety) - impacts to navigability for each alternative according to USCG
10. Mitigation Site Replacement (ROW) - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures
11. Protected Lands Replacement (ROW) - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures

Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini.

Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.

Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.

Ranking of Alternatives

The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.

1. No Build
    a. All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex.
    b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the far-reaching material impacts to those resources from bridge construction in a cost-benefit analysis.
    c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement.
    d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.

2. Salmon Creek
    a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points
    b. Minimal functional impacts to SEALT mitigation sites
    c. Fewer regulatory and permitting requirements for impacts to protected resources
    d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek
    e. Lower mitigation costs
    f. Shortest intertidal crossing and use of existing interchange reduce impacts
3. Twin Lakes
    a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant
    b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources
    c. Would shut down important waterfowl hunting areas on the Refuge
    d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini
    e. Moderate to high mitigation costs
4. Vanderbilt
    a. More damaging to salt marsh, habitat connectivity, and Refuge integrity
    b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area
    c. Moderate functional impacts to SEALT mitigation sites
    d. Would shut down important waterfowl hunting areas on the Refuge
5. Mendenhall Peninsula
    a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex
    b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts
    c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.
6. Sunny Point West
    a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.

b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.
d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.

7. Sunny Point East
    a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.
    d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
    e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration.

Recommendations to PEL Study Team and Future Second Crossing Project Reviewers

- In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.
- Add criteria for Low Marsh Wetlands Impacted, High Marsh Wetlands Impacted, Fishing, Hunting, Recreation, Cultural Uses, Aviation Approaches, Aviation Facilities, Navigability, Mitigation Site Replacement, and Protected Lands Replacement.
- Weight the criteria according to their importance and regulatory protections.
- The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.

- This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by technical reviewers.

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Juneau-Douglas North Crossing - Concerns about Process & Expert Review

The current PEL (Planning and Environmental Linkages) Study process for the Juneau Douglas North Crossing has suffered from a lack of transparency, unreliable communications concerning screening results, short comment periods, and poor, incomplete response to concerns. The process seems oriented to achieve a predetermined result, regardless of objections and concerns raised by technical reviewers and key stakeholders. From the beginning, the PEL Study Team led by DOWL has ignored or profoundly underestimated the values inherent to the wetlands. **The Mendenhall Wetlands:**

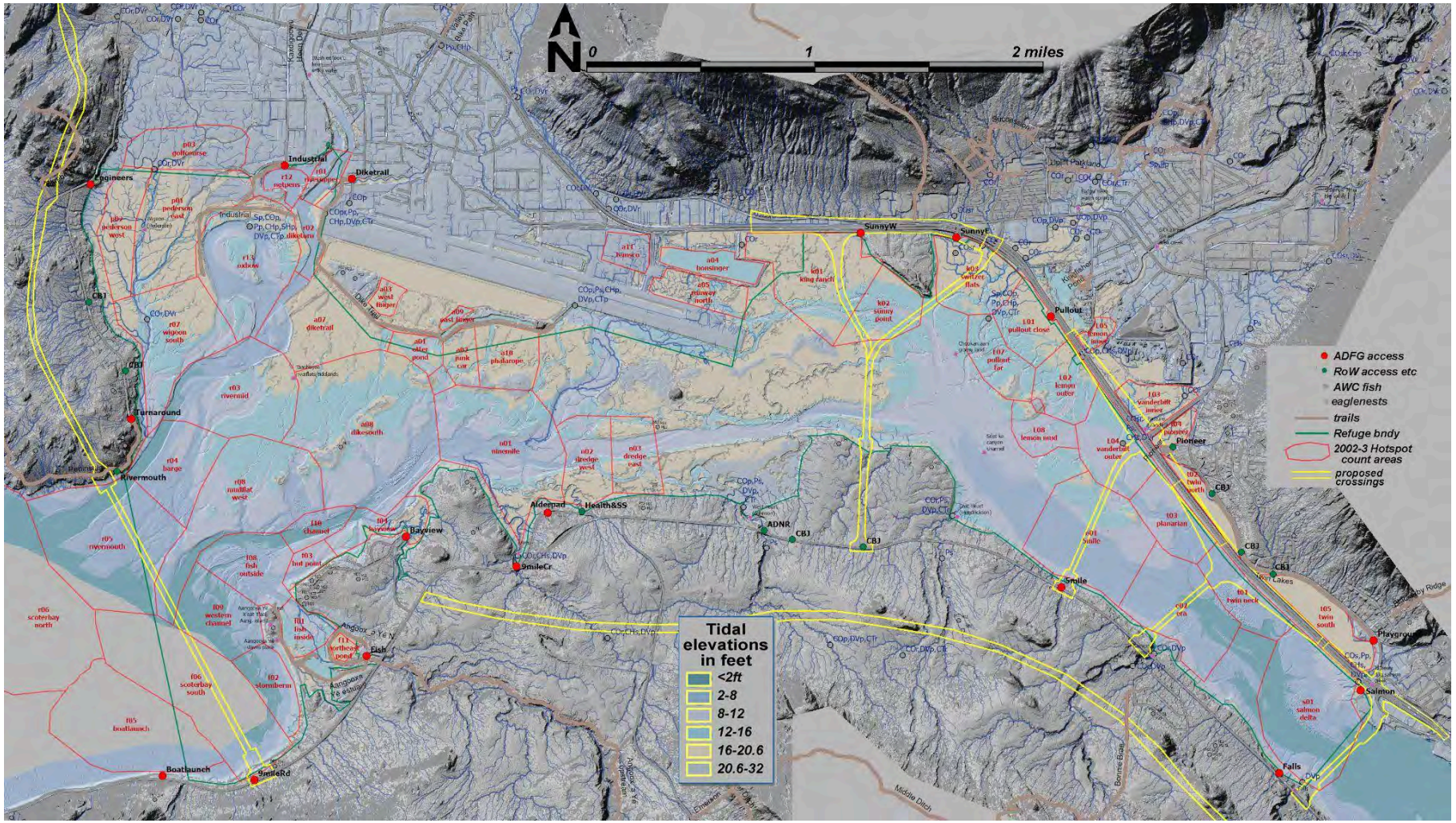
- Are designated as a Globally Important Bird Area (IBA) supporting at least 5% of the population of 34 species
- Include the Mendenhall Wetlands State Game Refuge, a 3,700-acre public preserve protected by law in 1976
- Along with the Mendenhall River and dozens of streams, they provide nursery/rearing habitat for fish, sustaining wild food access, recreational fishing for locals, and food for migratory birds, wildlife, and marine mammals
- Exemplify rare and highly significant salt marsh and tidelands supporting southeast Alaska's food web
- Support visitor industries such as whale-watching, wildlife viewing, and other scenic tours
- Are some of Juneau's most accessible and frequented public open spaces, which Juneau residents value for various uses: waterfowl hunting, bird watching, fly fishing, hiking, cultural and edible plant harvest, dog walking, etc.

We emphasize that habitat removed from the Mendenhall Wetlands cannot be duplicated. There are only three IBAs in Southeast Alaska; our wetlands connect a migratory bird corridor that supports millions of birds.

Outstanding concerns about the screening process and financial risks of a poorly planned second crossing:

- **Alternatives dismissed without due process.** The PEL Study Team, guided by CBJ, is dismissing the Salmon Creek alternative without concurrence from regulatory agencies or advisory committees, on the grounds of a highly unlikely flood event. The PEL Study Team's scenario includes a confluence of catastrophic events, including an 8.0 earthquake in Chatham Strait, *and* a total simultaneous disappearance of the Salmon Creek dam, *and* AEL&P operating outside of their FERC license for the dam. CBJ's rationale to eliminate the Salmon Creek route seems less than authentic when CBJ expresses no urgency to address risks to the existing highway and infrastructure at Salmon Creek – the actual casualties of this improbable scenario.
- **Faulty analysis.** DOWL's work products throughout the screening process have been poor quality, flagged by both regulators and stakeholders for factual errors, unsupported conclusions, and deviations from the process.
- **Construction expenses**. The PEL Study Team favors longer alternatives (Sunny Point, Vanderbilt) over shorter ones (Salmon Creek, Twin Lakes). A bridge will have to be elevated to accommodate tidal flows that nourish the wetlands, and construction costs will be high and escalate the farther west a crossing is located.
- **Maintenance expenses.** Even the shortest of the crossings adds a significant maintenance burden to an already stretched ADOT&PF budget. CBJ has no plans to take on the cost of plowing, re-paving, structural upkeep, etc. If a second crossing is desired by a community facing population decline, budget deficits, school closures, and an affordable housing crisis, it must be planned comprehensively with healthy scrutiny of the costs vs benefits.

Juneau residents live here in large part for proximity to the natural world, and the Mendenhall Wetlands are a vital example of what makes Southeast Alaska such an incredible place to live, work, and visit. Although a second crossing might fulfill some important goals, it should be located so that it does not jeopardize ecological and community values that cannot be replaced elsewhere. To build a second crossing directly in beloved open space, at the cost of rare and important migratory bird and fish habitat - eliminating accessible hunting and recreation for many locals - would irrevocably alter the character of Juneau and Southeast Alaska. **We urge a comprehensive cost-benefit analysis and consideration of alternative routes outside of the Mendenhall Wetlands.**



Map: JDNC PEL Study Alternative Crossing Locations relative to the Mendenhall Wetlands State Game Refuge, municipal parks, state recreation areas, Juneau International Airport, fish streams, bird hotspot survey areas, hiking trails, and access points for hunting & fishing

We support a process that uses the best available science to identify the second crossing alternative that has the least negative impact on humans, natural resources, and the habitat values of the Mendenhall Wetlands State Game Refuge.

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
P.O. Box 240303, Douglas Alaska 99824
www.northdouglasneighborhoodassociation.com

August 8, 2024

City and Borough of Juneau Assembly
155 Heritage Way
Juneau, Alaska 99801

Re: PEL Process

Dear Mayor Weldon and Assembly Members:

The North Douglas Neighborhood Association (NDNA), through its Second Crossing Committee, has actively participated in the processes for developing a second crossing from the Juneau mainland to North Douglas Island, including during the round of review in 2005-07 and more recently, in relation to the Planning and Environmental Linkages (PEL) Study being conducted by DOWL pursuant to an agreement between the CBJ and the Alaska Department of Transportation and Public Facilities (DOT). Our primary interest in these processes has been to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. Our concerns regarding a second crossing are best reflected in written comments and correspondence (including to the Assembly) that are posted on the NDNA website noted above. We invite you to review these documents.

NDNA has emphasized in all of its comments regarding a second crossing, including in the PEL process, that it does not take a position on whether a crossing should be constructed and if so, which of the alternatives is preferable. This neutral stance is consistent with the diversity of views about a crossing among residents and property owners on North Douglas. We have engaged responsibly, with a clear expectation that the process for identifying crossing alternatives would be both transparent and credible.

We are therefore alarmed by recent efforts to eliminate the Salmon Creek alternative from the suite of options under consideration. The rationale for this move is reflected in a draft memo from DOWL to DOT, dated June 27, 2024, which proposes to exclude the Salmon Creek alternative from further review and analysis under NEPA. The ostensible premise is that this alternative fails to "guarantee transportation infrastructure resiliency" in the event of a catastrophic failure of the Salmon Creek dam. We believe that the reasoning and analysis leading to this conclusion are incomplete, highly flawed, and ignore the many positive aspects of this alternative that have been identified in both the Level I and Level II screening results in the PEL study to date. We are concerned that the real motivation for this move to exclude Salmon Creek is to dismiss a crossing option that is outside the Mendenhall Wetlands State Game

Refuge (MWSGR) and which, because of that, implicates section 4(f) of the Department of Transportation Act of 1966. That statute prohibits using protected land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternatives that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under these standards, Salmon Creek would have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis. A last-minute revision of the Level I analysis to exclude this alternative – which is what the DOWL memo proposes to do – would arguably circumvent operation of section 4(f) and facilitate selection of a crossing that bisects the MWSGR.

The PEL study is only a preliminary phase of a crossing project. It would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative. The issue presented in the DOWL memo can and will be fully vetted during an ensuing NEPA review, with a thorough engineering analysis and risk assessment, and taking into account the views of the many agencies, both state and federal, that would have to be consulted. Accordingly, we call on the Assembly to oppose any move to eliminate Salmon Creek from consideration of possible crossing locations at this point in the process. We also ask that you shed light on the involvement of CBJ staff in supporting DOWL's recommendation. The discussions among the PEL study team and CBJ staff have not been open to the public. It is imperative, in the interests of transparency, that the Assembly clarify the extent to which you are informed of staff's support for eliminating the Salmon Creek alternative and whether the Assembly has approved those efforts.

Thank you for considering this letter. Representatives of NDNA are prepared to appear before the Assembly at future meetings, to discuss these concerns and answer any questions you may have about our reaction to this belated effort to revise the PEL study.

Mike Stanley, Chair
NDNA Second Crossing Committee

Ellen Ferguson, President
North Douglas Neighborhood Association

Endorsing NDNA Board and Committee Members: Julie Bednarski, Danielle Farrell-Brown, Wayne Carnes, Merry Ellefson, Fred Hiltner, Matt Kern, Doug Mertz, Jack Poulson, Kristie Swanson Poulson, Karen Pallenberg, Philip Pallenberg, Jim Powell

HUNTING AND FISHING OPPORTUNITIES THREATENED ON MENDENHALL STATE GAME REFUGE

Posted by Mary Glaves | April 30, 2024

Alaska BHA is committed to fighting for wild places and critical habitats that give hunters and anglers an opportunity to participate in the outdoor heritage of hunting and fishing in a natural setting. Critically important fish and wildlife habitat within the Mendenhall State Game Refuge is currently under threat due to a development proposal known as the Juneau-Douglas Second Crossing, and it could restrict access for a huge number of hunters and anglers. BHA is pro-wildlife, habitat, and opportunity guided by sound scientific management. We look at projects on a case-by-case basis to be sure they don't jeopardize these values beyond reasonable mitigation strategies.

The Mendenhall State Game Refuge was designated in 1976 by the Alaska State Legislature. It was, in part designated so hunters could learn to pursue waterfowl and have a place to hunt. The Mendenhall Wetlands not only provide opportunities for sport and subsistence hunting and fishing, but they are also a globally important bird area according to National Audubon and have even been called a "fish factory." In 2023, the Alaska Department of Fish & Game added over a dozen anadromous fish to the Anadromous Waters Catalog (AWC) fish streams after surveying the wetlands. A total of 230 species of birds have been documented within the wetlands – that's 69% of the 335 bird species for all of Southeast Alaska - including 36 different waterfowl species (Audubon). It's also the most popular waterfowl hunting destination in Southeast Alaska, so yeah, you could say it's pretty important to the conservation community.

The Juneau-Douglas Second Crossing is a major development project that has a bit of history, 40 years of it, actually. The Second Crossing was first brought up in 1984, and on three other occasions between then and now. The proposal seeks to connect Douglas Island to Juneau and reduce congestion, provide transportation resiliency and facilitate future development on Douglas Island. The reason it never gained traction before is a lack of consensus on location. The City and Borough of Juneau has partnered with the Alaska Department of Transportation & Public Facilities (ADT&PF), which currently has federal funding for the project, and has narrowed alternatives to 5 different locations for the crossing – four of which go through the Mendenhall State Game Refuge. However, hunters, anglers and conservationists are coalescing around a fifth option, the Salmon Creek Alternative, and most agree that the location of the bridge should be outside of the Mendenhall State Game Refuge.

Project Overview and Area Map



Regarding a Transportation Corridor on the Mendenhall Wetlands:

The Mendenhall Wetlands State Refuge Management Plan says that: CBJ may acquire land for a public transportation corridor, including a water corridor, only after the following criteria have been demonstrated: 1) That there is a significant public need for the corridor which cannot reasonably be met off refuge 2) That the use of the refuge lands are avoided or minimized to the maximum extent feasible including of subsurface or elevated, no fill corridor options where feasible 3) That public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel.

New private, exclusive use transportation corridors will not be authorized within the refuge.

If a second crossing through the State Game Refuge were to move forward, while there are viable off-refuge options, that would be not be meeting the first criteria of a transportation corridor in the Mendenhall Wetlands State Refuge Plan. In addition, a bridge through the refuge would threaten public access for waterfowl hunting due to the new traffic and road barriers through prime hunting areas. This results in the bridge not meeting the third criteria in the management plan, which dictates that public access to the refuge be maintained.

Alaska BHA has concerns about the JDNC Bird and Upland Habitat Report prepared for ADT&PF as a part of the project. Alaska Audubon's Shorebird Conservation Manager, River Gates has said "Data in the JDNC Bird and Upland Habitat Survey Report was collected just once in the fall when bird migration is protracted over a longer southbound migration period. However repeated seasonal surveys are critical during fall migration as multiple species and age groups (females, males, and juveniles) migrate during slightly different times. It is essential to also hold surveys in the spring, and also in summer when birds are nesting in the wetlands and surrounding areas. Conducting shorebird surveys during low tide without spotting scopes can reduce the observers' (whose training in accurate rapid census techniques was not outlined) detection rate because birds are greatly dispersed across a large landscape with low light and rain. Rising tide surveys are a better standard as foraging birds are concentrated as the tide rises (allowing for more accurate counts and species identification)."

Alaska BHA demands sound scientific management and analysis of proposed projects from the AKDOT and City and Borough of Juneau (CBJ) that could cause irreparable damage to critical habitats. If construction of the second crossing is deemed necessary by the community of Juneau and thorough analysis is conducted, Alaska BHA encourages decision makers to select the Salmon Creek location which would be the least impactful option to habitat and hunting access.

Stand up for hunting, angling and habitat within the Mendenhall Wetlands and encourage responsible siting of development projects on public lands.

TAKE ACTION



If you hunt or fish on the Mendenhall State Game Refuge, a second crossing through the refuge will significantly affect your opportunity to recreate here.



ABOUT MARY GLAVES
Alaska Chapter Coordinator for BHA. You can find Mary outside with a rifle, bow, fishing rod, or mushroom knife most sunny or rainy days on Alaska's public lands.

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The Second Crossing and Southeast Alaska's Mendenhall Wetlands Important Bird Area

Just like Juneau, the Salmon Creek, the Ayk species, the Glaucous-Winged Gull and the Mendenhall Wetlands Important Bird Area.



Mendenhall Wetlands is a new Important Bird Area (IBA) designated by Audubon Alaska and the Alaska Audubon Society. The IBA encompasses the Mendenhall Wetlands State Game Refuge, the Mendenhall Glacier Recreation Area and the Mendenhall Wetlands State Marine Park. Photo: Audubon Alaska

Photo by Ian Hatch
Photo: Ian Hatch / Audubon Alaska
Support Audubon Alaska's work to protect Alaska's birds and habitats.
Donate Now

What and Where is the Wonderful Mendenhall Wetlands Important Bird Area?

The IBA encompasses the Mendenhall Wetlands State Game Refuge, the Mendenhall Glacier Recreation Area and the Mendenhall Wetlands State Marine Park.

Audubon Alaska and the Alaska Audubon Society have been working to establish the Mendenhall Wetlands IBA since 2015. Audubon Alaska's Science Director Dr. Nils Warnock and Alaska Audubon's Executive Director Hal Shepherd led the effort, harnessing over a year of bird observations from eBird, Alaska Audubon's Annual Bird Count, and Audubon Alaska's Shorebird Monitoring Program.

Audubon Alaska's Dr. Nils Warnock and Alaska Audubon's Hal Shepherd at the Mendenhall Wetlands State Game Refuge. Photo: Audubon Alaska

2ND CHANNEL CROSSING

CROSSING COMMENTS

- ONE OF THE THINGS THAT SETS ALASKA'S CAPITAL, JUNEAU, APART FROM MOST OTHER CITIES IS THE SPECTACULAR VIEW OF THE MENDENHALL GAME REFUGE FROM THE AIRPORT TO SALMON CREEK. THIS VIEW PROVIDES AN INITIAL POSITIVE IMPRESSION TO VISITORS TO OUR CAPITAL CITY. CROSSING THE REFUGE WITH A ROAD BETWEEN THE AIRPORT AND SALMON CREEK IN THE REFUGE AREA WOULD DESTROY THAT EXPERIENCE UNIQUE TO JUNEAU.

- **[SEE ATTACHED PICTURE NUMBER 1.]** IT MAKES NO SENSE TO CROSS THE REFUSE AT THE WIDEST SPOTS. CROSSING THE REFUGE EAST OR WEST OF SUNNY POINT OR AT VANDERBUILT HILL WOULD DESTROY THIS IMPORTANT SENIC AREA.

- THE MENDENHALL GAME REFUGE IS CLASSIFIED AS A "GLOBALLY RECOGNIZED IMPORTANT BIRD AREA." SEE THE **MENDENHALL WETLANDS IMPORTANT BIRD AREA** BOOK BY ROBERT ARMSTRONG, RICHARD L. CARSTENSEN, MARY F. WILLSON AND HARGE HERMANS OSBORN. CROSSING THE REFUSE WILL GREATLY ENDANGER THIS.

- **[SEE PICTURES 2, 3, & 4]**, AND YOU WILL GET AN IDEA OF THE IMPORTANCE OF THIS AREA TO MIGRATING AND LOCAL BIRDS.

- LOOK AT **PICTURE 1** AND YOU CAN GET AN IDEA OF THE IMPORTANCE OF THE SUNNY POINT AREA AS THE MAJOR DEER CROSSING LOCATION BETWEEN DOUGLAS ISLAND AND THE MAINLAND. SEVERAL DEER HAVE THEIR YOUNG IN THE SOUTHERN AREA OF SUNNY POINT AND RETURN TO LEAVE THEIR YOUNG TO WINTER ON SUNNY POINT WHEN MATING SEASON BEGINS IN THE FALL. BUILDING THE CHANNEL CROSSING NEAR SUNNY POINT WOULD ELIMINATE THIS IMPORTANT WILD ANIMAL CROSSING, BIRTHING AND WINTERING AREA.

- CROSSING THE WILDLIFE REFUGE AT THE SUNNY POINT LOCATION WAS PUT TO THE VOTERS OF JUNEAU IN 2007 AND WAS DEFEATED BY A VERY LARGE MAJORITY. THE CROSSING DID NOT CARRY ANY OF THE JUNEAU OR DOUGLAS VOTING DISTRICTS AND LOST BY MORE THAN A 2 TO 1 MARGIN. THERE IS EVERY REASON TO BELIEVE AN ELECTION TODAY ON THIS LOCATION WOULD YIELD THE SAME RESULTS.

- **THE 2ND CHANNEL CROSSING SHOULD NOT OCCUR IN THE MENDENHALL GAME REFUGE BETWEEN THE AIRPORT AND SALMON CREEK.**

PREFERED ROUTE

- THE PREFERED ROUTE BY THE AUDUBON SOCIETY AND THE SUNNY POINT NEIGHBORHOOD ASSOCIATION IN 2007 WAS AT THE SALMON CREEK/CHANNEL DRIVE LOCATION, **OUTSIDE OF THE MENDENHALL GAME REFUGE.**

- ATTACHED FOR YOUR REVIEW ARE **"NOTES FROM STAKEHOLDER MEETINGS OF THE JUNEAU AUDUBON SOCIETY"** AND FROM **THE SUNNY POINT NEIGHBORHOOD ASSOCIATION** THAT WERE PRESENTED DURING THE FAILED 2007 ATTEMPT TO PERSUADE THE PUBLIC THAT CROSSING THE WILDLIFE REFUGE AT THE SUNNY POINT AREA WAS A GOOD IDEA. **THESE NOTES AND IDEAS VERY MUCH APPLY TODAY AS THEN.**

- THE SALMON CREEK/CHANNEL DRIVE CROSSING CAN BE CONSTRUCTED OUTSIDE OF THE MENDENHALL WETLANDS GAME REFUGE AND AS SUCH WOULD COMPLY WITH SECTION 4[f] OF THE DEPARTMENT OF TRANSPORTATION ACT OF 1966 AND THE MSGWR MANAGEMENT PLAN, WHICH STATES THAT A PUBLIC TRANSPORTATION CORRIDOR CAN BE CONSTRUCTED THROUGH THE REFUGE **ONLY** IF "THERE IS A SIGNIFICANT PUBLIC NEED FOR THE CORRIDOR WHICH CANNOT REASONABLY BE MET OFF-REFUGE." ["Reasonable" defined as "within the realm of common sense."]

- THE BENCH ROAD, WEST OF THE EXISTING BRIDGE ON DOUGLAS ISLAND IS CRITICAL TO PROVIDING EFFECTIVE ACCESS TO WEST DOUGLAS AND A SECOND CROSSING AND SHOULD BE PART OF THE PROJECT.

- IF THE MAIN INTENT OF THE CHANNEL CROSSING IS TO RELIEVE TRAFFIC PRESSURE ON THE EXISTING DOUGLAS BRIDGE FROM TRAFFIC COMING FROM DOUGLAS OR WEST JUNEAU, THEN THE BRIDGE AT SALMON CREEK MAKES THE MOST SENSE. THE BENCH ROAD WEST OF THE EXISTING BRIDGE MAKES THE SALMON CREEK BRIDGE THE BEST OPTION FOR ACCESS TO EAGLE CREST, AND THE BACK SIDE OF DOUGLAS ISLAND WHILE MINIMIZING ENDANGERING THE ENVIRONMENTALY FRAGILE WILDLIFE REFUGE.

- THE SALMON CREEK CROSSING CHOICE WITH THE BENCH ROAD PROVIDES DIRECT ACCESS TO JUNEAU'S HOSPITAL AND HEALTH CARE NEEDS. THIS LOCATION MINIMIZES IMPACTS TO THE ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE.

- A CROSSING LOCATION CLOSER TO SUNNY POINT WILL DISPLACE BIRDS THAT WILL MOVE TOWARD THE AIRPORT AND INCREASE HAZARDS TO AIRPLANE TRAVEL.

- THE CROSSING AT SALMON CREEK WILL BE THE SHORTEST AND LEAST EXPENSIVE CHOICE.

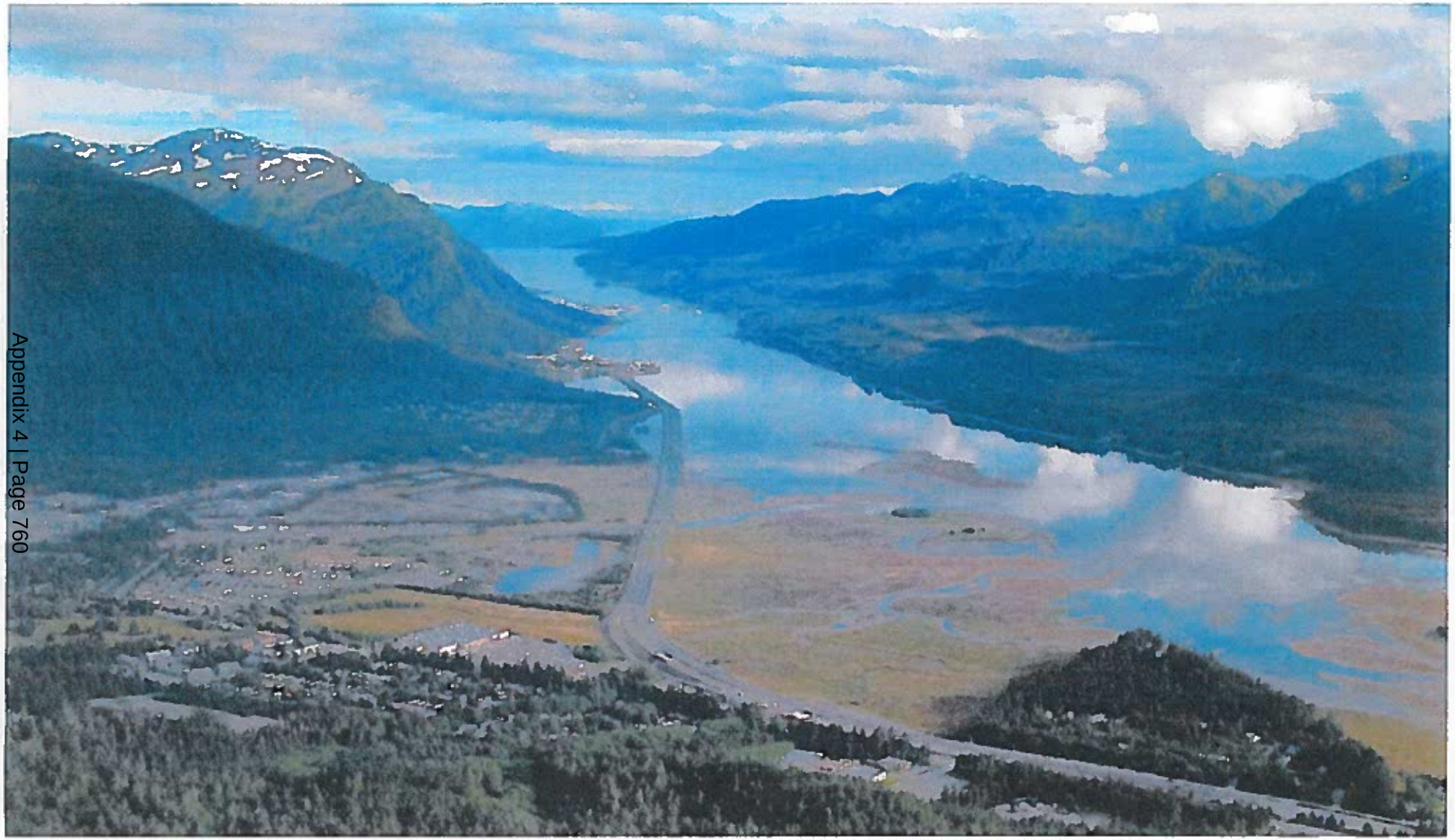
2ND CHOICE CROSSING

- IF THE OVERIDING CRITERIA IS TO PROVIDE A MORE DIRECT ROUTE FROM THE MENDENHALL VALLEY TO EAGLECREST AND TO THE BACK SIDE OF DOUGLAS ISLAND WITH LITTLE REGARD FOR THE ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE, THEN A CROSSING FROM DOUGLAS ISLAND TO INDUSTRIAL BOULEVARD WOULD BE THE SECOND CHOICE.

- THIS LOCATION WHILE FAR FROM IDEAL WOULD LEAVE INTACT THE SPECTACULAR VIEW AND ENVIRONMENTAL VALUES OF THE MENDENHALL GAME REFUGE FROM THE AIRPORT TO JUNEAU.

- THIS LOCATION MIGHT NOT REQUIRE AN IMMEDIATE CONSTRUCTION OF THE BENCH ROAD BUT THIS NEEDS TO BE PLANNED FOR AND LAND ACQUISITIONS SHOULD BEGIN.

- IF A DEEPWATER PORT AND INDUSTRIAL USE OF THE BACK SIDE OF DOUGLAS ISLAND IS ENVISIONED, THEN WITH THE SUBSTANCIAL ADDITIONAL TRUCK TRAFFIC AND HEAVY INDUSTRIAL EQUIPMENT USE, THE INDUSTRIAL BOULEVARD LOCATION WOULD BE THE SECOND CHOICE. **THE BENCH ROAD AND THE SALMON CREEK ACCESS WITH THE OBVIOUS ENVIRONMENTAL AND VISUAL ADVANTAGE REMAIN THE FIRST AND MUCH PREFERRED CHOICE.**



PICTURE 1.

PICTURE 2.

PICTURE 3.

PICTURE 4.

Notes from Stakeholder Meetings

Audubon Society

- Route preference: Salmon Creek/Channel Drive. Object to crossings within the Mendenhall Wetlands State Game Refuge (MWSGR). The Salmon Creek alternative has following advantages:
  - Can be constructed outside of MWSGR; would comply with Section 4(f) of Department of Transportation Act of 1966.
  - Provides needed secondary access to hospital and for emergency services.
  - Least environmental impacts at this location (the identified "hot spot" is not a major environmental concern and construction of an all structure crossing would minimize impacts.)
  - Would relieve congestion on the existing bridge and address near-term needs for improved capacity of crossing(s) to Douglas Island.
  - All-structure crossing at this location affordable and feasible.
  - At Salmon Creek, could construct a tall enough bridge to meet navigability requirements without having to use a movable structure.
- Criteria to guide selection of route:
  - Do not cross within Refuge.
  - Minimize impacts to environmental values of Refuge.
  - Consider future development patterns, relative to cost and feasibility of providing city services and infrastructure (e.g., sewer, water). Don't encourage sprawl (e.g., development at West Douglas, which is distant from City center.)
- Must have a Needs Assessment that clearly shows the purpose and need for the crossing. Concern that the need is speculative (especially as it relates to future development at West Douglas.)
- Question maintenance and operation costs and feasibility for a movable structure. Vessels cross the Mendenhall Bar in numbers on the highest tide; would require bridge to be open and cause long delays in vehicle traffic.
- Sunny Point area (adjacent to the new interchange) is not listed as an environmental "hot spot," but it is. Shorebirds and geese congregate at this location. Consistent and frequent use by hunters. Commented that of the three routes (Vanderbilt, Sunny Point, Yandukin), the Sunny Point route would cross the most valuable environmental areas.
- Neither of the Yandukin Drive Corridors seems feasible, due to cost and potential impacts to the Airport.
- All alternatives (1-15) achieve the project's objectives to varying degrees. No alternative should be off the table at this point.
- Concern that if birds are displaced, for example at Sunny Point area, they will move toward the Airport area and increase hazard there.

Attendance:

Jeff Sauer, President
Mary Lou King
Matt Kirchhoff
Brenda Wright
Steve Zimmerman

Date: January 4, 2007

Sunny Point Neighborhood Association

- Route preference: Salmon Creek/Channel Drive. Must comply with Section 4(f) and with the MSGWR Management Plan, which requires that a public transportation corridor can be constructed through the Refuge only if "there is a significant public need for the corridor which cannot reasonably be met off-refuge." ("Reasonable" defined as "within the realm of common sense.")
- Criteria to guide selection of route:
  - Do not cross within Refuge.
  - Minimize impacts to environmental values of Refuge. Concern about impacts to birds and other wildlife, coho nursery areas in tideflats and other fisheries productivity, drainage, hunting, youth access, visual attributes.
  - Consider future development patterns, relative to cost and feasibility of providing city services and infrastructure (e.g., sewer, water). Don't encourage sprawl (e.g., development at West Douglas, which is distant from City center) that will increase public infrastructure costs and property tax burden to pay for them.
- If considering route farther west, should look at a tunnel option, regardless of cost. Tunnel option would reduce impacts to hunting, visual environment, and airport operations.
- MWSGR is extremely important environmentally, and also serves important role in providing urban hunting, open space, visual environment.
- Concern that the need is speculative (especially as it relates to future development at West Douglas.) For future community development, CBJ should be looking at areas that are more readily and less-expensively connected to public infrastructure and services, such as Goat Hill, bench lands in West Mendenhall Valley, bench lands in Lemon Creek Valley.
- Need to evaluate effects on potential coastal flooding, especially under storm surge conditions. (Consider using COE model of channel, used to model results of past dredging actions.)
- Bench Road is critical to providing effective access to West Douglas. The two projects should go hand-in-hand. North Douglas Highway and the associated neighborhood cannot safely accommodate the traffic increase that would come with significant new growth and industrial use of West Douglas.

Attendance:

Sherri Chrysler
James King
Jim King
Mary Lou King
Dale Lanegan
Frank Rue
Sally Rue

Date: December 6, 2006

28. T.J. Duffy

From: Morgan McCammon
To: T.J. Duffy; PUB-JDNorthCrossing
Subject: RE: [EXT] I fully SUPPORT the second JD crossing.
Date: Monday, September 19, 2022 7:40:36 AM
Attachments: image001.png

Good morning Mr. Duffy,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: T.J. Duffy <[redacted]
Sent: Saturday, September 17, 2022 4:10 AM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] I fully SUPPORT the second JD crossing.

Some people who received this message don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

To the planners:

I fully support a second crossing between Juneau and Douglas Island without reservation. Consistent with the map below, my preferences -- in order of preference -- are as follows:

4 - West Sunny Point. For the same reasons as above in #3 below.

3 - East Sunny Point. This makes the most sense, across the Mendenhall Wetlands in an area where boats cannot navigate, water is shallow and has the most land mass. Glacial rebound

is raising the land in this area and Gastineau Channel is merely a trickle.

2 - Vanderbilt Hill. Same reasons as above.

I am opposed to the following considered crossings for the following reasons:

1 - Salmon Creek. Traffic improvements would be minimal due to its proximity to the existing bridge.

5 - Eagle Crest/8 mile. - We might have to extend our airport runway in the future.

6 through 14. - Too much water, too much money.

I feel the concerns for waterfowl in the Mendenhall Wetlands area are minimal as there would be wildlife concerns wherever a second crossing is contemplated. Wildlife will adapt, and people likely won't be driving cars in 50 years anyway. I rarely see waterfowl in that area anyway. Hunters can go elsewhere. They shouldn't be hunting there anyway.



Respectfully submitted,

T.J. Duffy

[redacted]

[redacted]

29. United States Environmental Protection Agency

DATE	ITEMS	PAGE
1/13/2023	United States Environmental Protection Agency Region 10 Water Division Letter	771
3/27/2023	United States Environmental Protection Agency Region 10 Water Division Letter	774

January 13, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has reviewed the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study (ADOT&PF, *Summary of Previous Studies, Reports and Findings*, May 2022), the Environmental Setting document (December 2022), the potential crossing ideas document, wetlands and waterways document, the Virtual Public House video presentation (May 11, 2022), Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023), meeting summaries, and baseline data available on the project website https://www.jdnorthcrossing.com/. The stated project purpose and need statement (Updated November 2022) of the JDNC PEL study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The PEL study states that the project need should address alternative access and transportation infrastructure resilience and decrease traffic pressure on Douglas Island Bridge and its intersections.

In an effort to participate in early planning and provide regulatory background, EPA is providing preliminary comments related to discharges under the Clean Water Act 404(b)(1) Guidelines (Guidelines). EPA is submitting these comments in response to the Alaska Department of Transportation and Public Facilities (ADOT&PF) JDNC project PEL study and associated materials, including project alternatives.

ALTERNATIVES ANALYSIS

According to the video presentation (May 11, 2022) the study team has not identified any route within the study area as the preferred alternative and seeks to work with the Technical Advisory Committee (TAC) to find the best solution. The video presentation states that in winter/spring 2023 detailed alternative screening results and recommended alternatives will be brought forward for future development and that comments will be accepted throughout the process. Fifteen preliminary Alternatives are described within the PEL study. On January 11, 2023 a map was provided to the TAC that depicts the further extension of the Bench Road to connect with the Mendenhall Peninsula alternative. The Alternatives Development Workshop document (July 19, 2022) includes Alternative Screening Criteria as Level 1 (Baseline Purpose and Need Criteria and Level 2 (Qualitative Criteria). An alternative must score positive in all criteria under Level 1 to advance to the Level 2. Level 2 criteria include impacts to waters of the U.S. including wetlands.

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. The Guidelines at 40 CFR § 230 are the substantive environmental criteria for the evaluation of proposed discharges of dredged or fill material into Waters of the United States (WOTUS), including wetlands. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines at 40 CFR § 230.10 identify several specific restrictions on discharges. The first of these, at 40 CFR § 230.10(a), specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[1] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[2]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Once the LEDPA has been identified, that is the version of the project which is evaluated against the other restrictions on discharge found in subsections § 230.10(b), (c), and (d).

The JDNC project proposes to construct a second crossing near Juneau to connect with Douglas Island. The proposed project will require fill in the intertidal areas including estuarine and marine deepwater WOTUS. Any alternative that requires the "Bench Road" would result in additional wetland fill on the Douglas Island side. It is not clear at this stage of the Project which of the alternatives may represent the least environmentally damaging practicable alternative (LEDPA) to achieve the project purpose, however all appropriate and practicable steps must be taken to avoid, minimize, and compensate for remaining impacts to aquatic resources, consistent with 40 CFR § 230.10(a) and (d) of the Guidelines. As noted in the Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023) ADOT&PF is required to evaluate and identify the LEPDA to avoid and minimize impacts of WOTUS to the maximum extent practicable. Because the Project has presented more than fifteen crossing alternatives, EPA finds it especially prudent at this time to provide information on the requirements under the Guidelines to help identify the LEDPA alternative. EPA is pleased to see the Project's baseline National Wetlands Inventory and City and Borough of Juneau (Figure 2 data) wetlands mapping efforts as part of the baseline for use towards this evaluation.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at (206) 553-0285 or by email at jensen.amy@epa.gov, or you may contact Betsy McCracken at (907) 271-1206 or by email at mccracken.betsy@epa.gov.

Sincerely,

Amy Jensen,
Regional Wetland Coordinator
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[1] 40 CFR § 230.10(a)(2)
[2] 40 C.F.R. § 230. 10(a)(3).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3188

WATER DIVISION

March 27, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has been participating in Technical Advisory Committee (TAC) meetings regarding the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study and has reviewed documents available on the project website.[1] EPA provided preliminary comments relative to our authorities under the Clean Water Act (January 13, 2023), and subsequently attended a virtual meeting on March 6, 2023, referenced as "Meeting No. 3." In response to the March 6th meeting, the TAC was asked to provide feedback on the Draft Level 1 Screening Results Technical Memorandum [2](TM). In an effort to continue to participate in early planning and provide regulatory background, EPA is providing additional preliminary comments related to the restrictions on discharges of dredged or fill material under the Clean Water Act 404(b)(1) Guidelines (Guidelines).[3]

PURPOSE and NEED/ Level 1 Alternative Screening

The stated project purpose and need statement (Updated November 2022) of the JDNC PEL indicates the purpose of the study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The Project's stated purpose and need statement is not specific to identified traffic concerns. In addition, the Juneau-Douglas Island population growth projections that would contribute to increased traffic have not been realized. At present, it is not clear that the need for the Project has been well substantiated. EPA recommends that the purpose and need more specifically incorporate the problem that would be addressed/solved by completing the project.

PRACTICABLE ALTERNATIVES/IDENTIFYING THE LEDPA

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines identify several restrictions on discharges. The first of these restrictions specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."[4] An

[1] https://www.jdnorthcrossing.com/.
[2] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[3] 40 CFR § 230.10.
[4] 40 CFR § 230.10(a).

alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[5] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[6]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Identification of the LEDPA is achieved by performing an alternatives analysis (AA) that evaluates the direct, secondary/indirect, and cumulative impacts to waters of the United States (WOTUS) resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.[7] EPA recommends the Project incorporate a formal LEDPA AA into the Project process to facilitate permitting decision making.

RANKING/SALMON CREEK ALTERNATIVE

Based on the Appendix; Level 1 Screening Results Overview[8] (page 28) under Step 2 *Additional Goals, Avoid, minimize, and mitigate impacts* to the environment, there are three categories: "high", "medium" and "low". A ranking of "high" means there is a high potential for the alternative to avoid impacts. While it is difficult to directly compare the aquatic resource impacts without knowing the designs of each alternative, the project ranking of "medium" was assigned (pages 29 and 37) to the Salmon Creek alternative. The other six alternatives are ranked as having "low" potential to avoid, minimize and mitigate impacts; with the no-build alternative ranking "high". EPA encourages the Project to consider and fully evaluate the Salmon Creek crossing as being the potential LEDPA alternative, while also meeting the project's stated purpose and need. While the TM states that there are challenges tying in with the Egan Drive/Channel Drive Intersection, there is also opportunity to upgrade this Juneau mainland intersection to improve current conditions. As noted in the TM and the North Crossing PEL Study Environmental Setting (ES) document,[9] the Salmon Creek Alternative is outside of the Mendenhall Wetlands State Game Refuge, would require the shortest crossing span, impact the least amount of wetlands (ES document, page 80, Figure 14, Wetlands in the Study Area), and least amount of documented Anadromous waters (ES document, Page 87, Figure 16; Anadromous fish habitat within the study area). Based upon information provided thus far, it also appears this alternative may require the least amount of intertidal dredge and fill impacts.

POTENTIAL DREDGING

Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems concerned.

EPA has been working with the Corps Alaska District Civil Works and Regulatory Programs since early 2020 to develop an Alaska-specific Dredged Material Evaluation Framework (AK DMEF) to provide

[5] 40 CFR § 230.10(a)(2).
[6] 40 C.F.R. § 230. 10(a)(3).
[7] 40 C.F.R. § 230.10(a)(2).
[8] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[9] JD North Crossing Environmental Setting, December 2022.

regional specificity for implementing federal sediment evaluation and testing regulations.[10] All regional implementation manuals are based on the process and procedures outlined in the Inland Testing Manual, a national guidance document authored by EPA and the Corps.[11] The Alaska District and EPA agreed to use the Seattle District's Dredged Material Evaluation and Disposal Procedures User Manual (User Manual)[12] as the template for the AK DMEF for evaluating the suitability of dredged material for in-water disposal under the Guidelines.[13] EPA recommends using the User Manual as regionally specific interim guidance for evaluating the suitability of dredged material from this project for in-water disposal.[14]

The draft AK DMEF, User Manual, and Inland Testing Manual include a tiered approach to sediment characterization for dredging projects. More specifically, these guidance documents outline four tiers of evaluation: 1. Site Evaluation and History, 2. Chemical Testing, 3. Biological Testing, and 4. Special Studies. Every dredging project is subject to a Tier 1 evaluation to determine if enough information exists to make a decision on whether dredged sediments will be suitable for open-water disposal. The presence of an adequate baseline is part of this determination. The Tier 1 evaluation may be the only tier required for a suitability determination, or it may inform evaluation by other tiers. The tiered analysis, provides the information needed to make a factual determination as required by the Guidelines.[15]The need for and extent of the Tier 1 evaluation should be incorporated into the Project, depending on the alternative selected.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at (907) 271-1206 or by email at mccracken.betsy@epa.gov.

Sincerely,

Betsy McCracken
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[10] 40 C.F.R. § 230 Subpart G.
[11] Evaluation of Dredged Material Proposed for Discharge in Waters of the US- Inland Testing Manual, Office of Water, EPA and Operations, Construction, and Readiness Division, Army Corps, February 1998, 176 pages. Available at: https://www.epa.gov/sites/default/files/2015-08/documents/inland_testing_manual_0.pdf.
[12]Dredged Material Evaluation and Disposal Procedures User Manual, Dredged Material Management Office, Seattle District, July 2021, 167 pages. Available at:https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/5397.
[13] 40 C.F.R. § 230.60.
[14] Per 40 C.F.R. § 230.61(a), which allows for interim guidance on sediment testing procedures under the Guidelines.
[15] 40 C.F.R. § 230.11.

30. United States Fish and Wildlife Service

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United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
Anchorage Fish and Wildlife Conservation Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO, AFWCO

Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Screening Process and Preliminary Alternatives (Service File Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the screening process and preliminary alternatives developed for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. Preliminary alternatives were developed jointly by the project team and members of the Technical and Stakeholder Advisory Committees in July 2022. These alternatives underwent a pre-screening process, during which some were advanced, some were combined, and some were eliminated altogether. Two additional screening processes will occur during the PEL Study. The Level 1 screening will be completed with minimal additional data collection; alternatives that fail to meet the purpose and need, as well as a range of qualitative evaluation criteria will be removed from further consideration under this screening process. The Level 2 screening will evaluate the detailed alternatives using a broad range of criteria and will consider the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent

species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Screening Process

- The Service appreciates the opportunity to provide comments during the Level 1 screening process; however, our staff were unable to attend previous in-person-only meetings in Juneau. We therefore request that future Technical Advisory Committee meetings be offered virtually to ensure greater participation by technical experts.
- We also recommend consultation with the Douglas Indian Association and the Central Council of Tlingit and Haida Indian Tribes of Alaska throughout the screening process.
- It was noted that a "No-build Alternative" is being considered, but it was not included as a Preliminary Alternative in the screening process. We feel it is important that this alternative be discussed alongside all other potential alternatives and that the Advisory Committees have the opportunity to provide comments on this alternative as well.
- What are the next steps for Level 1 and Level 2 screening? How and when will the results of the screening process be communicated with the Technical and Stakeholder Advisory Committees?
- Will there be an opportunity during the PEL Study for Advisory Committees to review in more detail the anticipated project activities and resulting impacts to wildlife and their habitats under each alternative? This information would provide important context for determining the need for permits and authorizations under each alternative.
- The Service would appreciate additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

<u>General Comments</u>

- We recommend that all relevant resource agencies, organizations, and Tribes be contacted directly to ensure that baseline environmental data being evaluated within the study area is up-to-date and comprehensive. This includes but is not limited to: wetland and vegetation classifications, plant and animal species occurrence data (especially invasive species, sensitive or rare species, subsistence species, and protected species), and wildlife habitat types (e.g., upland habitat, Essential Fish Habitat, anadromous streams).
- It would be helpful to see a map with the Preliminary Alternatives overlayed on the Mendenhall Wetlands State Game Refuge (Refuge). Given the global importance of the Refuge for migratory birds and its already compromised status, being surrounded by major urban development, it will be helpful to be able to visualize the alternatives that will have a direct impact within Refuge boundaries.
- The Southeast Alaska Land Trust (SEALT) owns mitigation sites adjacent to the Refuge and some of the proposed crossings. It will be imperative to work closely with the Alaska Department of Fish and Game (ADFG) and SEALT to understand the direct and

indirect impacts of each of the potential crossings on hydrologic connectivity within the Refuge and the adjacent mitigation sites. This connectivity is essential to its continued function as an estuary and as important bird and fish habitat.

Avoidance and Minimization Measures for Service Trust Species

- We recognize that the Service, Information for Planning and Consultation (IPAC) website indicates that the federally endangered short-tailed albatross (*Phoebastria albatrus*) may use habitats in the study area. However, short-tailed albatrosses are generally associated with shelf break and slope regions of the northwestern Pacific Ocean and the Bering Sea, which do not exist within the study area. Therefore, we do not expect the presence of short-tailed albatross within the vicinity of the potential crossings. If it is determined that there will be no effect on the albatross within your action area, no additional Endangered Species Act consultation with the Service is needed.
- Although northern sea otters (*Enhydra lutris kenyoni*) are not commonly observed within the area of the potential crossings, if it is determined that there may be impacts to northern sea otters from project activities, we recommend you reach out to our Marine Mammals Management (MMM) Regulatory Program Lead, Sierra Franks, at sierra_franks@fws.gov, for further coordination.
- The study area, and especially the Refuge, supports a diverse assemblage of bird species. The Mendenhall Wetlands complex has the third greatest acreage of vegetated tidal salt marsh of all estuaries in Southeast Alaska, and it is a key migratory waterfowl and shorebird stopover location in coastal Alaska. The network of brackish sloughs and ponds contained within the complex are used significantly by waterbirds, songbirds, and raptors for resting and foraging (Audubon 2023, website). This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including marbled murrelets (*Brachyramphus marmoratus*), olive-sided flycatchers (*Contopus cooperi*), rufous hummingbirds (*Selasphorus rufus*), black oystercatchers (*Haematopus bachmani*), marbled godwits (*Limosa fedoa*), and rock sandpipers (*Calidris ptilocnemis*). We recommend that screening of all preliminary alternatives prioritizes these environmental conditions and species of concern, and that crossing locations within these important areas be avoided if possible. Any potential impacts to birds or their habitats would be subject to evaluation under the Migratory Bird Treaty Act.
- Bald and golden eagles also occur within the study area and may be impacted by the proposed crossings. Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the selection of the final alternative (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these

surveys, together with guidance from the Service, will help determine which crossings may be detrimental to eagles, appropriate avoidance and minimization measures that may be recommended, and whether a permit may be needed.

- The rivers and streams occurring within the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur.
- Although amphibians and mammals in the study area are not explicitly protected by the Service under Federal law, these taxa are considered trust resources under the Fish and Wildlife Coordination Act, which directs the Service to evaluate impacts to fish and wildlife from proposed water resource development projects and to provide recommended measures to mitigate such impacts. Therefore, we recommend that the most up-to-date information on amphibian and mammal populations and habitat be compiled and included in future screening efforts, and that alternatives selected for consideration have the lowest possible impact on these wildlife communities.

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at 907-231-5850 or sarah_markegard@fws.gov and reference Service File Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

Literature Cited

Audubon. 2022. Important Bird Areas: Mendenhall Wetlands, Alaska website. Accessed January 31, 2023. https://www.audubon.org/important-bird-areas/mendenhall-wetlands

From: Morgan McCammon
To: Markegard, Sarah I
Cc: Cooper, Douglass; Lewis, Steve B; Daigneault, Michael J; Bjornlie, Nichole L; Mahara, Carol J; Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Jovie Garcia; Lockwood, Gregory K (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Theresa Dutchuk
Subject: RE: [EXT] Re: [EXTERNAL] RE: JDNC Joint Advisory Committee Meetings No. 5
Date: Friday, April 12, 2024 7:02:32 AM
Attachments: image001.png

Good morning, Sarah,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Markegard, Sarah I [redacted]>
Sent: Thursday, April 11, 2024 4:40 PM
To: Morgan McCammon [redacted]>
Cc: Cooper, Douglass [redacted]>; Lewis, Steve B [redacted]>; Daigneault, Michael J [redacted]; Bjornlie, Nichole L [redacted] Mahara, Carol J [redacted]
Subject: [EXT] Re: [EXTERNAL] RE: JDNC Joint Advisory Committee Meetings No. 5

WARNING External Sender - use caution when clicking links and opening attachments.

Hello Morgan,

Please see the attached US Fish and Wildlife Service comments regarding Level 2 Screening for the JDNC PEL Study. Don't hesitate to reach out if you have questions or need clarity on anything.

Thank you,
Sarah

Sarah Markegard (she/her)
Fish and Wildlife Biologist
Southern Alaska Fish and Wildlife Field Office
Alaska Region | U.S. Fish and Wildlife Service

[redacted]

I acknowledge that I live on the traditional lands of the Dena'ina people, and I work throughout the ancestral territory of the Indigenous Peoples of Alaska. I am grateful for their continued care and stewardship of this land.

From: Morgan McCammon [redacted]
Sent: Tuesday, April 2, 2024 10:42 AM
To: Daugherty, Leslie K (DOT) <[redacted]; margaret <[redacted]; Purves, Nathan A (DOT) <[redacted]; Bjornlie, Nichole L <[redacted] Markegard, Sarah I <[redacted]; Mahara, Carol J <[redacted]v>; Lindgren, Jesse W (DFG) <[redacted]>; Meitl, Sarah J (DNR) <[redacted]>; Lynae Craig [redacted] kbitslarson <[redacted] margaret [redacted]>; Chuck Smythe [redacted]; Spencer, Kari [redacted]; 'Daniel King' [redacted]>; Matt Robus [redacted]; Matt Little <[redacted]>; Dave Hanna [redacted]>; Alaska Concrete Casting [redacted]>; Molly Zaleski - NOAA Federal [redacted]>
Cc: Heidemann, Marie E (DOT) <[redacted]>; Gentemann, Christy D (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted]; Kolwaite, Douglas S (DOT) [redacted]>; Taylor, Jill A (DOT) [redacted]>; Katie Koester <[redacted]; Bridget LaPenter [redacted]>; Irene Gallion [redacted]>; Steven Noble <[redacted]; Renee Whitesell <[redacted]>; Jovie Garcia [redacted]; Theresa Dutchuk [redacted] Ryane Gray [redacted]; Marella Gungob [redacted]; Michael Horntvedt [redacted]>; Mike Hall [redacted]>; Denise Koch [redacted]v>; Keller, Nina (DOT) [redacted]>
Subject: [EXTERNAL] RE: JDNC Joint Advisory Committee Meetings No. 5

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning, Juneau Douglas North Crossing PEL Study Advisory Committee Members,

We have received requests for access to the GIS information used in the draft level 2 screening evaluation. To assist in your review of the level 2 screening, we have created a GIS web mapper. This GIS mapping can be found here: Juneau Douglas North Crossing Level 2 Screening (dowl.com). As a reminder, we are requesting comments on the level 2 screening preliminary impact table and scoring tables (attached) by **April 11, 2024**.

A link to the mapper will also be made publicly available on the website https://www.jdnorthcrossing.com/.

Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon [redacted] >
Sent: Monday, March 18, 2024 3:34 PM
Cc: Heidemann, Marie E (DOT) [redacted] >; Gentemann, Christy D (DOT) <[redacted]; Lockwood, Gregory K (DOT) [redacted] >; Kolwaite, Douglas S (DOT) [redacted] >; Taylor, Jill A (DOT) [redacted] >; Katie Koester [redacted] >; Bridget LaPenter <[redacted] >; Irene Gallion <[redacted] >; Steven Noble <[redacted]; Renee Whitesell <[redacted] >; Jovie Garcia [redacted]; Theresa Dutchuk [redacted] >; Ryane Gray [redacted] >; Marella Gungob [redacted]; Michael Horntvedt [redacted] >; Mike Hall [redacted] >; Denise Koch [redacted] >; Keller, Nina (DOT) [redacted] Morgan McCammon [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Juneau Douglas North Crossing PEL Study Advisory Committee Members,

Thank you for participating in the advisory committee; we appreciate the diverse perspectives you provide. Due to several requests for additional review time, we are extending the deadline for comments on the level 2 screening preliminary impact table and scoring tables (attached) to **April 11, 2024**. After that, we will evaluate and incorporate necessary changes to finalize the level 2 screening and prepare the draft PEL Study Report.

Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, March 1, 2024 4:34 PM
[redacted] Lindgren, Jesse W (DFG) <[redacted]; Meitl, Sarah J (DNR) [redacted]; Lynae Craig [redacted]; kbitslarson [redacted]; [redacted] Spencer, Kari [redacted]; [redacted]; 'Daniel King' [redacted]; Matt Robus <[redacted]; Matt Little [redacted] Dave Hanna [redacted]; Alaska Concrete Casting <[redacted] >
Cc: [redacted] Irene Gallion [redacted]; Steven Noble <[redacted]; Renee Whitesell [redacted]; Jovie Garcia [redacted]; Theresa Dutchuk [redacted]; Ryane Gray [redacted] Marella Gungob [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

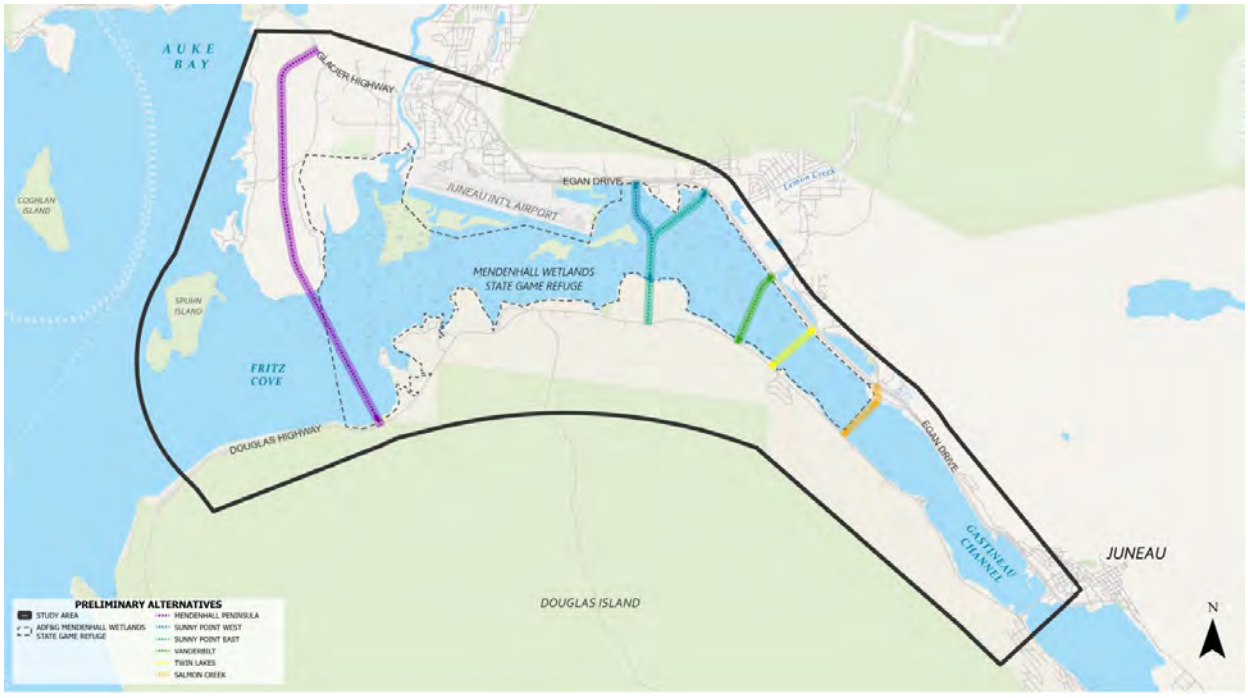
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: 'marie.heidemann@alaska.gov' <[redacted]>; 'christy.gentemann@alaska.gov' <[redacted]; 'greg.lockwood@alaska.gov' [redacted]; 'douglas.kolwaite@alaska.gov' [redacted]>; 'jill.taylor@alaska.gov' [redacted]; 'Katie.Koester@Juneau.gov' [redacted]>; 'bridget.lapenter@juneau.gov' [redacted]>; Irene Gallion <[redacted]; Steven Noble <[redacted]>; Renee Whitesell <[redacted]>; Jovie Garcia [redacted] Theresa Dutchuk [redacted]>; Ryane Gray <[redacted]>; Marella Gungob [redacted]>; 'mhorntvedt@parametrix.com' [redacted]>; 'MHall@parametrix.com' [redacted]>; 'Denise.koch@juneau.gov' <[redacted]; 'nina.keller@alaska.gov' [redacted]>
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To [redacted]; Lindgren, Jesse W (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]; Lynae Craig [redacted]; Spencer, Kari [redacted]>; [redacted]; 'Daniel King' <[redacted]; Matt Robus [redacted]>; Matt Little [redacted]>; Dave Hanna [redacted]>; Alaska Concrete Casting [redacted]>
Cc: [redacted]; Irene Gallion [redacted]>; Steven Noble [redacted]; Renee Whitesell <[redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]; Ryane Gray [redacted]>; Marella Gungob [redacted]>; Morgan McCammon [redacted]
Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO

Mr. Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Level 2 Screening Process (Consultation Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the Level 2 screening process for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. The Level 2 screening is intended to evaluate the detailed alternatives using a broad range of criteria and considers the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study and the resulting recommended alternatives will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Level 2 Screening Process
We offer the following comments on the Level 2 Screening process.

- We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.

- This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.
- If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.
- In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.

- We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically:
  - The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.
  - Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.
  - If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process.
- For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.
- The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives.
- It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public.
- In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

General Comments

- The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts.
  - We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.

- In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved:
  - Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.
  - Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.
  - Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc.

- The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.
- Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.

<u>Avoidance, Minimization, and Mitigation for Service Trust Resources</u>

- The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (*Brachyramphus marmoratus*), black oystercatcher (*Haematopus bachmani*), rock sandpiper (*Calidris ptilocnemis*), short-billed dowitcher (*Limnodromus griseus*), lesser yellowlegs (*Tringa flavipes*), red knot (*Calidris canutus*), California gull (*Larus californicus*), olive-sided flycatcher (*Contopus cooperi*), rufous hummingbird (*Selasphorus rufus*), chestnut-backed chickadee (*Poecile rufescens*), varied thrush (*Ixoreus naevius),* and Vaux's swift (*Chaetura vauxi*). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.

- Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.
- The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.
- Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.

Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at 907-231-5850 or sarah_markegard@fws.gov and reference Consultation Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

31. Technical and Stakeholder Advisory Committee Comments and Responses

31a. Technical and Stakeholder Advisory Committee Meetings Comments and Responses

MEETING	DATE	ITEMS	PAGE
Workshop	7/19/2022	Comments Received	792
2	11/17/2022	Comments Received	817
3	3/6/2023	Comments Received	880
4	9/14/2023	Comments Received	936
5	3/7/2024	Comments Received	962
7	3/4/2025	Comments Received	1119

From: Winston Smith
To: Morgan McCammon
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Thursday, August 4, 2022 6:49:28 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

After reviewing the attached documents, I have a few comments listed below:

First, I think it is important to differentiate a **need** from a **desire** because **needs** should take priority over **desires** in reviewing various options. For example, redundancy for health and safety concerns is clearly a need, whereas access for economic development is more of a desire. I don't see any distinction in the document or attempt to prioritize goals and objectives PEL is seeking to accomplish.

Secondly, I perceive a bias in the existing document. Why should economic impact be listed above emergency response. Indeed, in my view emergency response is a need whereas, economic impact is a desire. Yet, in the list presented on page 3 has economic impact and developable land each at the top of the two columns of emerging needs. Also, development of growth areas is at the top of the needs list on page 4. This appears to be the driving influence in this process. In addition, in the list of goals to be met by various alternatives, enhance and protect public health and safety is near the bottom of the list.

Three, although providing infrastructure consistent with CBJ planning framework is included as a criterion, little emphasis appears to be given to practical considerations, such as whether an option is doable because of costs, environmental barriers, or beyond the CBJ planning framework or expectations, which should be more explicit and front and center.

Thank you.

Winston Smith
[redacted]

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon [redacted] wrote:

> Dear Stakeholder Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.
>
> We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.
>
> Please provide us with any comments you have on the draft purpose and need statement by **Friday,**

August 19, 2022. As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From:	Linda Shaw - NOAA Federal
To:	Morgan McCammon
Cc:	Molly Zaleski - NOAA Federal
Subject:	[EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date:	Friday, August 5, 2022 3:30:27 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Molly Zaleski and I looked over the Juneau Douglas North Crossing PEL Study - Purpose and Need Statement and have the following comments.

We support the following statement as important to the purpose and need of the project.

"Improve existing natural environmental conditions where possible and
avoid/minimize/mitigate adverse
impacts to the natural environment."

We felt the following two statements were seemingly contradictory.

"Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric
vehicles."

and

"Add roadway capacity and utility infrastructure to support the development of growth areas envisioned
on North and West Douglas Island"

Thank you for the opportunity to comment on the purpose and need statements.

LInda and Molly

Linda Shaw (she | her)
Wildlife Biologist, Alaska Region
NOAA Fisheries | U.S. Department of Commerce
Office: [redacted]
https://www.fisheries.noaa.gov/region/alaska

On Thu, Aug 4, 2022 at 4:55 PM Morgan McCammon <[redacted]> wrote:

> Dear Technical Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of

Juneau and the Alaska Department of Transportation and Public Facilities.

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Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Margo Waring
To: Ronald
Cc: Morgan McCammon; [redacted]; Teri Tibbett; Bartlett, Kristin; [redacted]; Michael Stanley; [redacted]; Brian Holst; [redacted]; Robert Venables; [redacted]; Wade Bryson; Christine Woll; [redacted] Cathy Schlingheyde; [redacted]; Daniel King; Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; Katie Koester; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt; Alex Wertheimet; Bob Armstrong; Catherine Pohl; Dan Teske; Deb Rudis; Diane Mayer; Doug Larsen; Frank Rue; Jay Nelson; Laurie Craig; Matt Robus; Neil Stichert; [redacted] Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Friday, August 5, 2022 2:41:45 PM

You don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

First, thanks to Ron for a clear statement of a clearly missing piece that was a major focus for the group I joined at Centential Hall. In addition, let me make a few additional comments. I note that the language of this document is vague, aspirational and often illogical.

Purpose

The purpose of the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study is to identify a north crossing corridor that will reduce dependency on the existing North Douglas Highway, improve network connectivity, reduce travel time and emissions, provide redundant access, improve emergency response time, and provide infrastructure consistent with City and Borough of Juneau's planning framework.

Need

The successful solution should address the following needs:

- Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island.

No growth is envisioned for North Douglas in any CBJ planning document.

The West Douglas planning document is due for a substantial review because the population projections and other constraints have changed dramatically, for example CBJ's adoption of a greenhouse gas goal.

- Provide redundancy and reduce travel times for public safety and emergency response in the event of traffic disruption on the North Douglas Highway, Douglas Island Bridge, or Egan Drive.

- Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency response.

The identified alternative(s) should also meet these additional goals:

- Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles.

Increasing miles available to be traveled on will, according to all studies, increase emissions. Juneau is a leader in per capita adoption of EVs. New federal incentives will likely increase adoption. It is hard to understand how increased miles increases the vialbility of EVs.

- Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development.

This is vague and highly questionable: how will increased miles reduce emissions (even if some trips are reduced in total miles, a bridge to North Douglas will increase traffic by accessibility. There are no plans for utility infrastructure improvements for North Douglas. Utility infrastructure and economic development are only part of the speculative concept of a satellite development.

- Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment.
- Improve access and connection to recreational, cultural, and subsistence resources.
- Enhance and protect public health and safety.

Logically, development of a second crossing, even if a tunnel, will not improve the existing natural environment as there is no place where this is "possible". The natural environment may be changed but not "improved." Adverse impacts to the natural environment cannot be avoided. That leaves only mitigation and minimization.

- Satisfy applicable federal, state, and local plans, policies, and regulations.

I would like to see how construction and use of a second crossing will help meet CBJ's climate goals.

On Fri, Aug 5, 2022 at 1:25 PM Ronald <[redacted]> wrote:

> Morgan, thanks for the draft Purpose and Need Statement. I thought it covered our collective efforts quite well. I do have, however, a couple of comments. It is possible that my comments are premature in that a more complete analysis will be presented later. Part of the PEL process and deadlines are unclear to me but I am a little slow at 84.
>
> I reviewed my notes from the meetings I attended and a couple of omissions seem important. Under the Public and Agency Involvement Section, the emerging themes were

expressed and listed. One of the important themes left out was “protection of the existing natural environment within the study area.” This of course refers to the Refuge in particular. Although many of us would support a second crossing to Douglas, the solution is in the details. Leaving out the communities concerns for environmental issues as a major theme is a major oversight. Every meeting I have attended there has been a clear expression from the public to make environmental issues a major part of this study.

Under the “need” category your “additional goals”, other than advocacy details, again skim over the environmental issues except to say, “Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts on the natural environment.” Why not say, “develop ways to minimize impacts on the Mendenhall Refuge.”

One of the first meetings I attended, I offered that a major need was to identify all of the past crossing studies, recommendations and results with an assessment of why the proposals were unsuccessful. Except for the first study which proposed that the major option was from the Mendenhall Peninsula to North Douglas, the others had varying degrees of impacts on the Refuge. In my humble opinion, the potential impacts on the Refuge is one of the major stumbling points for this proposal and efforts to minimize those concerns early on in this process is a major mistake.

Thanks again for the draft.

Ron Somerville

From: Morgan McCammon <[redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]

[redacted] Kari.Spencer@Goldbelt.com; [redacted]; Daniel King <[redacted]
Cc: Heidemann, Marie E (DOT) [redacted]>; McNally, Chrissy A (DOT) [redacted]>; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted] Gentemann, Christy D (DOT) [redacted]v>; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) [redacted]>; Murray, Nicholas W (DOT) [redacted]a.gov>; irene.gallion <[redacted]; John Bohan [redacted]g>; Alec Venechuk <[redacted]>; Katie Koester [redacted]org>; Steven Noble <[redacted]>; Renee Whitesell [redacted]; Rachel Steer [redacted]>; Nina Keller Horne [redacted]m>; Theresa Dutchuk [redacted]>; Kristen Hansen [redacted]Jovie Garcia [redacted]>; Mike Hall [redacted]m>; Michael Horntvedt [redacted]>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

From: Ronald
To: Morgan McCammon; [redacted] "Daniel King"
Cc: Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; "Katie Koester"; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt; Alex Wertheimet; Bob Armstrong; Catherine Pohl; Dan Teske; Deb Rudis; Diane Mayer; Doug Larsen; Frank Rue; Jay Nelson; lauriecraig@gmail.com; Matt Robus; Neil Stichert; [redacted] Ron Somerville; Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Friday, August 5, 2022 1:25:33 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan, thanks for the draft Purpose and Need Statement. I thought it covered our collective efforts quite well. I do have, however, a couple of comments. It is possible that my comments are premature in that a more complete analysis will be presented later. Part of the PEL process and deadlines are unclear to me but I am a little slow at 84.

I reviewed my notes from the meetings I attended and a couple of omissions seem important. Under the Public and Agency Involvement Section, the emerging themes were expressed and listed. One of the important themes left out was "protection of the existing natural environment within the study area." This of course refers to the Refuge in particular. Although many of us would support a second crossing to Douglas, the solution is in the details. Leaving out the communities concerns for environmental issues as a major theme is a major oversight. Every meeting I have attended there has been a clear expression from the public to make environmental issues a major part of this study.

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Thanks again for the draft.

Ron Somerville

From: Morgan McCammon <[redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]
Cc: Heidemann, Marie E (DOT) <[redacted]; McNally, Chrissy A (DOT) [redacted]>; Schmidt, Joanne M (DOT) [redacted]>; Lockwood, Gregory K (DOT) <[redacted]>; Gentemann, Christy D (DOT) [redacted]; LeMieux, Katrina K (DOT) [redacted]>; Phillips, Kaden S (DOT) [redacted]; Kolwaite, Douglas S (DOT) <[redacted]>; Murray, Nicholas W (DOT) [redacted]>; irene.gallion <[redacted]>; John Bohan <[redacted]>; Alec Venechuk [redacted]; Katie Koester <[redacted]>; Steven Noble [redacted]; Renee Whitesell <[redacted]; Rachel Steer <[redacted]>; Nina Keller Horne <[redacted]; Theresa Dutchuk [redacted]>; Kristen Hansen [redacted]>; Jovie Garcia <[redacted]; Mike Hall [redacted]>; Michael Horntvedt [redacted]
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Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

From: Brenda Taylor
To: Morgan McCammon
Cc: [redacted]
Daniel King; Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; Katie Koester; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Tuesday, August 9, 2022 11:40:49 PM

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Morgan et al,

Thanks for sending this out.

I have a few questions...
- The maps that you had available at the Centennial Hall meeting were fascinating and informative. Is it possible to get electronic copies of them?
- You mentioned that you'd be working on the criteria for ranking options, will they all be based off of the "needs" statements or will there be other criteria as well. I'm particularly interested in assessing impact to neighborhoods. Will choosing options become a matter of which neighborhoods protest most loudly or is there a way to generate more comprehensive understandings of neighborhood impact? Some questions that I'd consider (I realize that some are questions asked of individuals and others that are more broadly assessed):

- If this proposed crossing were to go up in your front or back yard/view scape, would you still be in favor of it?
- How much extra would you be willing to pay for a tunnel if it would not negatively impact any neighborhoods?
- Which neighborhoods (where and how many) will be negatively impacted by this choice? Viewscape, increased traffic, changed drainage/erosion/wind, superseded right of way?

Thanks,

Brenda Taylor

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon [redacted]> wrote:

> Dear Stakeholder Advisory Committee Members,

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Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Nina Keller Horne

From: Morgan McCammon
Sent: Monday, August 8, 2022 2:21 PM
To: Peggy and Alex
Cc: Heidemann, Marie E (DOT); Steven Noble; Renee Whitesell; Nina Keller Horne
Subject: RE: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

Good afternoon Alex,

Thank you for this input. I will share this with the study team.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Peggy and Alex <[redacted]>
Sent: Monday, August 8, 2022 2:06 PM
To: Margo Waring [redacted]>
Cc: Ronald <[redacted]; Morgan McCammon [redacted]; Teri Tibbett [redacted]; Bartlett, Kristin <k[redacted]>; [redacted]; Michael Stanley [redacted]>; Krista Garrett [redacted] Brian Holst [redacted]>; [redacted] Robert Venables [redacted]>; [redacted] Wade Bryson <[redacted]>; Christine Woll [redacted]; jonheifetz [redacted]; Cathy Schlingheyde <[redacted] Daniel King [redacted]>; Heidemann, Marie E (DOT) <[redacted]>; McNally, Chrissy A (DOT) [redacted]; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]>; Gentemann, Christy D (DOT) [redacted]>; LeMieux, Katrina K (DOT) [redacted]>; Phillips, Kaden S (DOT) <[redacted]; Kolwaite, Douglas S (DOT) [redacted]>; Murray, Nicholas W (DOT) [redacted]>; irene.gallion <[redacted]; John Bohan <J[redacted]; Alec Venechuk <[redacted]>; Katie Koester <[redacted]>; Steven Noble [redacted]>; Renee Whitesell [redacted]>; Rachel Steer [redacted]>; Nina Keller Horne <[redacted]>; Theresa Dutchuk [redacted]; Kristen Hansen [redacted]>; Jovie Garcia <j[redacted]>; Mike Hall [redacted] Michael Horntvedt [redacted]>; Bob Armstrong <b[redacted]>; Catherine Pohl <[redacted]>; Dan Teske [redacted]; Deb Rudis [redacted]>; Diane Mayer [redacted]; Doug Larsen <[redacted]>; Frank Rue [redacted]; Jay Nelson <[redacted]>; Laurie Craig [redacted]>; Matt Robus [redacted]>; Neil Stichert <[redacted]>; Richard Carstensen <[redacted]>; Ryan Scott <r[redacted]>; Schumacher, Tom V (DFG) <[redacted]>; Steve Peterson [redacted]; Wright, Brenda [redacted]>
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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Thanks, Ron and Margo, for your insightful comments. Ron is spot on that protection of the existing natural environment should be in the list of priority "Needs". Burying in under "Additional Goals" makes it seem like a secondary consideration. In the previous analysis of preferred crossings (http://www.jdnorthcrossing.com//documents/JDNC_Previous_Studies_Summary_Report_FINAL.pdf) impact on the environment in general and the Refuge in particular was a major theme of public comment, leading to the identification of crossing sites with no to minimal impact on the Refuge. I believe that the study team is taking public comment until September 30 at JDNorthCrossing@dowl.com , and have been told that they have received few comments that support environmental protection as a priority. So think about sending them a few words of encouragement as individual commenters.

Alex

On Fri, Aug 5, 2022 at 2:41 PM Margo Waring [redacted] > wrote:

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The successful solution should address the following needs:

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No growth is envisioned for North Douglas in any CBJ planning document.

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- Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency response.

The identified alternative(s) should also meet these additional goals:

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incentives will likely increase adoption. It is hard to understand how increased miles increases the vialbility of EVs.

• Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development.

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• Improve access and connection to recreational, cultural, and subsistence resources.

• Enhance and protect public health and safety.

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• Satisfy applicable federal, state, and local plans, policies, and regulations.

I would like to see how construction and use of a second crossing will help meet CBJ's climate goals.

On Fri, Aug 5, 2022 at 1:25 PM Ronald [redacted] > wrote:

Morgan, thanks for the draft Purpose and Need Statement. I thought it covered our collective efforts quite well. I do have, however, a couple of comments. It is possible that my comments are premature in that a more complete analysis will be presented later. Part of the PEL process and deadlines are unclear to me but I am a little slow at 84.

I reviewed my notes from the meetings I attended and a couple of omissions seem important. Under the Public and Agency Involvement Section, the emerging themes were expressed and listed. One of the important themes left out was "protection of the existing natural environment within the study area." This of course refers to the Refuge in particular. Although many of us would support a second crossing to Douglas, the solution is in the details. Leaving out the communities concerns for environmental issues as a major theme is a major oversight. Every meeting I have attended there has been a clear expression from the public to make environmental issues a major part of this study.

Under the "need" category your "additional goals", other than advocacy details, again skim over the environmental issues except to say, "Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts on the natural environment." Why not say, "develop ways to minimize impacts on the Mendenhall Refuge."

One of the first meetings I attended, I offered that a major need was to identify all of the past crossing studies, recommendations and results with an assessment of why the proposals were unsuccessful. Except for the first study which proposed that the major option was from the Mendenhall Peninsula to North Douglas, the others had varying

degrees of impacts on the Refuge. In my humble opinion, the potential impacts on the Refuge is one of the major stumbling points for this proposal and efforts to minimize those concerns early on in this process is a major mistake.

Thanks again for the draft.

Ron Somerville

From: Morgan McCammon <[redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]
Cc: Heidemann, Marie E (DOT) [redacted]; McNally, Chrissy A (DOT) [redacted]; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) [redacted]; Kolwaite, Douglas S (DOT) [redacted]; Murray, Nicholas W (DOT) [redacted]; irene.gallion [redacted]; John Bohan [redacted]; Alec Venechuk <[redacted]org>; Katie Koester [redacted]; Steven Noble [redacted]; Renee Whitesell [redacted]; Rachel Steer [redacted]; Nina Keller Horne <[redacted]; Theresa Dutchuk <[redacted]; Kristen Hansen <[redacted]; Jovie Garcia [redacted]; Mike Hall [redacted]; Michael Horntvedt <[redacted]
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

Dear Stakeholder Advisory Committee Members,

Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.

We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From:	Morgan McCammon
To:	Margaret Custer
Cc:	Krista Garrett; Steven Noble; Renee Whitesell; Nina Keller Horne
Subject:	RE: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date:	Friday, August 19, 2022 2:20:00 PM

Hi Margaret,

Thank you for your input. I will share this with the team.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Margaret Custer <[redacted]
Sent: Friday, August 19, 2022 2:15 PM
To: Morgan McCammon <[redacted]
Cc: Krista Garrett <[redacted]>
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

SEALT has two pieces of feedback for the PEL Purpose & Need Statement that are essential to include. These are concise points for your team to review alongside the other committee members' feedback, and are not intended as public comments, so please let me know if you would like further detail.

We are primarily concerned about impacts to the Mendenhall Wetlands State Game Refuge and protected areas (such as SEALT mitigation sites), and not necessarily opposed to a second crossing if it satisfactorily addresses these needs:

Environmental Impact
Avoiding, minimizing, and mitigating impacts to the environment should be a primary goal for the study. The Mendenhall wetlands complex is indivisible from Juneau's overall environmental health, as it underpins the community's subsistence resources, the region's biodiversity, and critical access to sportfishing and hunting for all residents. A second bridge that crosses through the Refuge has the potential to bisect and disrupt the biological and hydrologic functions that support 227 species of birds and many other important species of migratory and resident animals every year. Therefore, protecting the Mendenhall Wetlands State Game Refuge and surrounding critical wildlife habitat should not be "additional" considerations. A serious PEL study will prioritize the avoidance, minimization, and mitigation of environmental impacts as alternatives are considered for development. This additional goal should be raised to a primary "need":

"Improve existing natural conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment."

Scenic Character

Juneau's scenic character is defined by the Mendenhall wetlands, and should be listed as an additional goal or priority for the study. The visual characteristics of migrating birds, salmon, marine mammals, bears, and uninterrupted views of the tidal zones and mountains are uniquely representative of Juneau, and a vibrant example of the greater region's scenic values. More than 1m visitors come to Juneau every year to enjoy the scenic character here, and residents are active on numerous trails overlapping with the Refuge and with SEALT conservation properties around it. A bridge spanning or filling the wetlands between the mainland of Juneau and Douglas Island would irretrievably damage this scenic character, and redefine what Juneau has to offer as both a visitor destination and a community that values free, wild, open spaces.

In addition to the iconic visual features of the community, there are the sounds, smells, and sensations of visiting pristine and healthy wetlands that cannot be replicated with segmented spaces between bridges. The sounds of birds and laughing people, and the fragrances of living plants and ocean life, all travel for miles in this wide open space, which adds to the attraction and enjoyment of the wetlands by all types of users. New bridge traffic across the Refuge would introduce a cacophony of vehicle noise and odor in this peaceful place - not just disrupting wildlife, but also residential neighbors and trail users. It would bring a sense of congestion and crowding to one of the only wide open spaces in Juneau that people and wildlife both go to rest, recreate, and find food. An example of an additional goal that could be added on page 4:

"Improve or maintain the visual, cultural, and scenic identity of Juneau and Douglas Island."

We will have more specific comments as the alternatives are drafted and shared with the advisory committees.

Thank you,

Margaret Custer · Executive Director
Southeast Alaska Land Trust
[redacted] · southeastalaskalandtrust.org

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon <[redacted]> wrote:

> Dear Technical Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.
>
> We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your

review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: LeMieux, Katrina K (DOT)
To: Morgan McCammon
Cc: Kolwaite, Douglas S (DOT); Heidemann, Marie E (DOT); Gentemann, Christy D (DOT)
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Monday, August 22, 2022 8:58:16 AM

You don't often get email from [redacted]. Learn why this is important

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Good morning,

I apologize that this is a business day late but I was reviewing not only the PN Statement but also the comments that have been received to date (that I have been included on). My predominant comment is for the clarification of how a/this PEL study differs from the historic studies done in the past for this effort. It was clear in the responses received that there may be some level of misunderstanding on this point. A PEL Purpose and Need must be a statement of a transportation problem, which I think the team has presented in this statement; however, the feedback received is concerned that the study isn't prioritizing potential environmental impacts strongly enough. I think an effort should be made, directly with commenters and here forward on the project, to thoroughly explain this study's unique process and all the future opportunities and requirements for the identification of the LEDPA, and hopefully this will assuage some of this public concern about the assumed lack of prioritization of this topic.

I apologize that I was not able to attend recent Alternatives Development Workshop as I was headed out of state that day. You may have thoroughly discussed all of these points with the public and they still feel the need to repeat their concerns, as it is important to them and as it would be to the project. This was just my only comment to the PN Statement provided for comment.

Thank you,
Katrina

Katrina LeMieux | NEPA Program Manager
Alaska Dept. of Transportation & Public Facilities
Statewide Environmental Office | Design & Engineering Services
[redacted]

From: Morgan McCammon [redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]
Despain, Timothy J (DPS) <[redacted]
Holst, Brian (CED sponsored) [redacted] robert venables

<[redacted]; Tibbett, Teri (DOH) [redacted] Schlingheyde, Catherine (LEG) <[redacted]; King, Daniel (CED sponsored) <[redacted]>
Cc: Heidemann, Marie E (DOT) [redacted]>; McNally, Chrissy A (DOT) <[redacted]>; Schmidt, Joanne M (DOT) <[redacted]>; Lockwood, Gregory K (DOT) <[redacted]>; Gentemann, Christy D (DOT) <[redacted]>; LeMieux, Katrina K (DOT) <[redacted]>; Phillips, Kaden S (DOT) <[redacted]; Kolwaite, Douglas S (DOT) <[redacted]>; Murray, Nicholas W (DOT) <n[redacted]>; irene.gallion <[redacted]>; John Bohan <[redacted]>; Alec Venechuk <[redacted]>; Katie Koester [redacted]; snoble <[redacted]>; Renee Whitesell <[redacted]>; Steer, Rachel (DOT Sponsored) <[redacted]>; Nina Keller Horne [redacted]>; Dutchuk, Theresa (DOT sponsored) <[redacted]>; k[redacted]; Jovie Garcia <j[redacted]>; Mike Hall [redacted]>; Michael Horntvedt <[redacted]>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Stakeholder Advisory Committee Members,

Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.

We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Nina Keller Horne

From: Morgan McCammon
Sent: Monday, August 15, 2022 1:20 PM
To: Ortiz, Liz M (DNR)
Cc: Heidemann, Marie E (DOT); Steven Noble; Renee Whitesell; Nina Keller Horne
Subject: RE: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

Good afternoon Liz,

Thank you for this input. I will share this with the study team.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Ortiz, Liz M (DNR) <[redacted]>
Sent: Monday, August 15, 2022 12:30 PM
To: Morgan McCammon [redacted]
Cc: Ortiz, Liz M (DNR) <[redacted]>
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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3130-1R FHWA 2022-00997

Good afternoon Morgan,

The Office of History and Archaeology / State Historic Preservation Office received your documentation and request for comment on August 4, 2022.

Following review of the PEL Study Purpose and Need Statement, and notes from the technical advisory committee and public meetings, our office does not have additional comments. We find the document satisfactory, and look forward to continued consultation on this project.

Thank you for the opportunity to review and comment. Please contact our office with any questions or if we can be of further assistance.
-Liz

Liz Ortiz, M.A. Archaeologist II
Review and Compliance
Alaska State Historic Preservation Office
Office of History and Archaeology
Department of Natural Resources
[redacted]
Due to Covid-19 concerns, we are on a hybrid schedule. Email is the best communication method.

From: Morgan McCammon [redacted]>
Sent: Thursday, August 4, 2022 4:54 PM
To: Daugherty, Leslie K (DOT) [redacted]; Alimi, Adeyemi S (DEC) <[redacted]>; Kanouse, Kate M (DFG) [redacted]>; Churchwell, Roy T (DFG) [redacted] Ortiz, Liz M (DNR) [redacted]; Patty Wahto (DOT-sponsored) [redacted]>; david.gann <[redacted]; [redacted] Cody Hargreaves [redacted]>; [redacted] Teske, Daniel J (DFG) [redacted]>; Purves, Nathan A (DOT) [redacted] Bjornlie, Nichole L [redacted]>; Markegard, Sarah I [redacted]; Kroes, Preston M (DNR) [redacted]
Cc: Heidemann, Marie E (DOT) <[redacted]>; McNally, Chrissy A (DOT) [redacted]v>; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]v>; Gentemann, Christy D (DOT) [redacted]v>; LeMieux, Katrina K (DOT) [redacted]v>; Phillips, Kaden S (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted]ov>; Murray, Nicholas W (DOT) <[redacted]>; irene.gallion [redacted]; John Bohan [redacted]>; Alec Venechuk [redacted]>; Katie Koester <[redacted]>; snoble [redacted]>; Renee Whitesell [redacted]; Steer, Rachel (DOT Sponsored) [redacted]>; Nina Keller Horne [redacted]>; Dutchuk, Theresa (DOT sponsored) [redacted]; Jovie Garcia [redacted]; Mike Hall [redacted]>; Michael Horntvedt [redacted]>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Technical Advisory Committee Members,

Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.

We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
To: Cody Salter; PUB-JDNorthCrossing
Subject: RE: [EXT] North Douglas crossing
Date: Thursday, October 20, 2022 8:31:10 AM

Good morning Cody,

Thank you for your interest in the Juneau Douglas North Crossing PEL Study, your comments on a crossing location, and rational. I have shared your comments with the project team.

We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Please share this information with your neighborhood association and circle.

We hope to see you at the Stakeholder Advisory Committee on November 17 and discuss your thoughts and concerns further.

Best regards,

Morgan McCammon
Public Involvement Specialist
DOWL
-
[redacted]
-
dowl.com

-----Original Message-----
From: Cody Salter [redacted]>
Sent: Wednesday, October 19, 2022 5:39 PM
To: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Subject: [EXT] North Douglas crossing

[Some people who received this message don't often get email from [redacted]. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

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My comment on the North Douglas Crossing is simply that the only true logical place to cross to North Douglas if you consider environmental and cost is to cross at the Vanderbilt intersection creating a Causeway the same way it was created to make Egan drive using riprap and dredged up silt. Of course a bridge would be required in the middle to allow the channel to still be used unfortunately a large house has been constructed in the past year or so in the ideal landing spot on the North Douglas side but the road could land a little north of that site. Some people think that isn't far enough out the road but in reality it allows the people living on North Douglas access to the valley with relatively short drive and get you very close to Eagle crest when coming from the valley and like I say it would be a very economical and environmentally friendly crossing but of course you can't keep everybody happy. Since Vanderbilt intersection has a working traffic light it would be very simple to add merge lanes and then it would be simple to add a roundabout on the North Douglas side of course all of this makes too much sense.

Eric "Cody" Salter

Sent from my iPad

From: Mendivil, Gary A (DEC)
To: PUB-JDNorthCrossing
Subject: [EXT] Alaska Department of Environmental Conservation Comments - Juneau Second Crossing
Date: Friday, February 3, 2023 4:02:49 PM
Attachments: PM10_boundaries.kmz

> Some people who received this message don't often get email from [redacted]. Learn why this is important

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From an air quality perspective, alternatives 1 and 2 fall within the Mendenhall Valley PM10 Maintenance area (see the attached PM10 boundary kmz file). Hence, if you decide to go with any of these two alternatives, you would need to meet the transportation conformity requirements per the Clean Air Act. However, to make an informed decision on the need for conformity analysis when the preferred alternative is chosen, the department would need set up an interagency conformity meeting. Only the members of the interagency committee, including the EPA, DEC, DOT&PF, FHWA, and FTA, can provide guidance on the conformity determination.

SEALT Comments and Questions on Juneau Douglas North Crossing PEL Study Materials

December 20, 2022

The Southeast Alaska Land Trust (SEALT) has several pieces of feedback for the PEL Study's Purpose & Need Statement, Recommended Alternative Selection Criteria, and Preliminary Alternatives Map. As we have communicated before, SEALT is primarily concerned about impacts to the Mendenhall Wetlands State Game Refuge and protected areas (such as SEALT mitigation sites).

In this document, we have provided feedback and recommendations in five categories. We also have questions for the study team in each category and are requesting that responses to these questions be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

Consultation with Resource Agencies

Consultation with the relevant resource agencies (e.g., USFWS, ADF&G, NOAA), is essential for conducting a high-quality study. The Technical Advisory Committee meetings are insufficient for achieving this purpose; aside from the fact that agency representatives located outside of Juneau could not attend the exclusively in-person meetings, the materials were not shared ahead of time, or in a format that would allow for thoughtful consideration and useful, expert input. The study team must consult directly and individually with each agency regarding the preliminary alternatives and screening criteria.

SEALT recommends:

1) The study should engage in direct consultation with agencies who maintain datasets and technical expertise that should inform this study, including, at minimum: USFWS, ADF&G, ADEC, DNR, USFS, and NOAA Fisheries.
2) Consultations should be scheduled to allow agency representatives located outside of Juneau to attend and materials should be provided beforehand to facilitate meaningful engagement and feedback.
3) These consultations should include discussion of important resources likely to be impacted by each alternative location and the availability of the best data sources for understanding and evaluating those impacts.
    - For example, the Level 2 analysis outlined in the Recommended Alternative Selection Criteria relies heavily on GIS analysis. State and federal resource agencies are the subject matter experts and should be consulted regarding the best available data.
4) Consultation steps should be identified in the Recommended Alternative Selection Criteria document.
    - Page 7 of the Recommended Alternative Selection Criteria document states "The decision of which alternatives ultimately advance to detailed alternative development will be based on professional judgement." This must include the professional judgment of the resource agencies.

Additionally, one of the Level 2 screening criteria is "Level of Technical Advisory Committee support: supportive vs. opposing comments received." **Please provide additional information regarding how and**

when during the PEL study process these comments will be solicited. The TAC meetings are insufficient for collecting these comments as no materials were provided ahead of time, preventing meaningful engagement by the committee members. It is unreasonable to expect on-the-spot comments.

Questions:

1) **At what point in the PEL study will you be engaging in direct consultation with relevant agencies?**
2) **How and when will you be soliciting supportive/opposing comments for review in Level 2 screening?**

Consultation with Tribes

The Recommended Alternative Selection Criteria should include direct consultation with local Tribal governments. The Stakeholder Advisory Committee meetings are insufficient for engaging with the appropriate representatives on the impacts of the proposed alternatives. Consultation with the traditional landowners and stewards is essential, particularly to identify and avoid impacts to sacred cultural sites that may not be a part of publicly-available data sets.

SEALT recommends, at minimum, a consultation with the Central Council of Tlingit and Haida Indian Tribes of Alaska and with Douglas Indian Association, who both have traditional and documented claims within the study area. We suggest the following points of contact:

- Raymond Paddock, [redacted]
- Heather Gatti, [redacted]
- Sarah Dybdahl, [redacted]v
- Andrea Cadiente-Laiti, a[redacted]

Question:

1) **At what point in the PEL study will you be engaging in direct consultation with local Tribal governments?**

Data Transparency

The PEL study should provide the Technical Advisory Committee members and consulting resource agencies additional transparency regarding the data used in screening the preliminary alternatives.

Areas requiring explanation of data use:

1) Additional information about how past studies have been or will be incorporated into this analysis is necessary. Either Level 1 or Level 2 screening should include criteria based on past study and consideration.
    - For instance, if a materially similar alternative was considered in a past study, provide the outcome of that study and the rationale for including it in this PEL study.
2) The Recommended Alternative Selection Criteria Appendix B references an "Environmental Setting Report" (DOWL 2022). This does not appear to be included on the PEL Study website; this should be made available for review by the Technical Advisory Committee and consulting resource agencies.
3) A list of the specific GIS data that will be used in the Level 2 screening criteria should be published.
4) The Purpose and Need Statement references traffic analyses; these traffic analyses should be cited and made publicly available.

Additionally, and perhaps most importantly, the results of the Level 1 and Level 2 screening for the final alternatives identified by the PEL study should be shared with the Technical Advisory Committee (relevant resource agencies). The federal and state agencies are the subject matter experts on the criteria being considered and should review the results to ensure that data is interpreted correctly. For example, in Level 1 screening, one of the criteria is "contaminated sites directly affected: yes/no". The Alaska Department of Environmental Conservation should have the opportunity to review the results of the screening to verify that their data has been interpreted correctly.

Questions

1) **How will the Environmental Setting Report, GIS screening data, and traffic analyses be made available for review by the Technical Advisory Committee?**
2) **How and when will the results of the Level 1 and Level 2 screening for the final alternatives be shared with the relevant resource agencies?**

Process and Engagement

ADOT should clarify the role of the PEL study in fulfilling its National Environmental Policy Act (NEPA) obligations and whether the agency is planning for project alternatives to be studied in an environmental impact statement (EIS) or environmental assessment (EA). It is important that the public, stakeholders, and consulted entities understand the process with which they are engaging in order to be able to do so effectively. Moreover, the decision about whether to complete an EA or EIS should be made in consultation with the entities described above.

SEALT Recommends:

Regardless of how ADOT plans to fulfill NEPA obligations, a no-build alternative must be considered. At a minimum, the Recommended Alternative Selection Criteria document should clearly outline why the no-build alternative is not being included in Level 1 and Level 2 screening. Additionally, the data supporting the PEL's draft purpose and need sections should be disclosed. Without understanding why alternate access and decreased traffic pressure on the existing bridge are needed, it is impossible to develop alternatives to address the purpose of improving connection between Juneau and Douglas Island. The public, stakeholders and consulted entities should be given an opportunity to engage with that data and help develop the needs statement.

Questions

1) **What is the role of the PEL study in fulfilling NEPA obligations?**
2) **What part of this PEL study replaces or substitutes for components of scoping?**
3) **Will there be a full EIS, or does this PEL study prevent the need for an EIS?**
4) **What data (traffic analyses) exist to support the concept that there is a "need" for decreasing traffic pressure on the existing bridge?**

Refuge Integrity

It is essential that the integrity of the Mendenhall Wetlands State Game Refuge be thoroughly considered and that impacts to the Refuge be fully disclosed to the public. The screening criteria, as currently drafted, only captures discrete, direct impacts to the natural resources (e.g., "wetlands directly affected: acreage impacted by construction").

Preconditions for construction within the Refuge

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. In accordance with this statute, the screening criteria must note that construction within the Refuge boundaries should be considered only after significant need has been established, and all other options are exhausted.

The Refuge is greater than the sum of its parts, in the following ways:

1) Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge.
2) A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.
    - For example, a second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Such a prohibition would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
    - Additionally, the location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, birding, fishing, and cultural activities.
3) The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's continued functionality as a wetland.
    - SEALT is especially concerned with crossing alignments adjacent to our conservation properties. As previously discussed, many of these properties are mitigation sites, providing compensatory mitigation through the USACE's In-Lieu Fee Program. Most of them were identified in the 2008 Juneau International Airport Large Project Mitigation Plan as selected in-kind mitigation sites, and were conserved for the purpose of offsetting the impacts of the airport's expansion. A crossing through the Refuge could be designed to avoid construction on these specific conservation properties. However, if the hydrodynamics are not thoroughly understood and accounted for, these mitigation sites could be isolated from their sustaining freshwater and tidal inputs, resulting in their transition from wetland to upland. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the aforementioned 2008 mitigation plan and the mitigation plans for SEALT's mitigation sites.
    - Likewise, a second crossing's impacts to the hydrodynamic connectivity of the entire Refuge and Mendenhall Wetlands complex must be thoroughly accounted for in order to prevent the drying-out of this globally significant estuarine resource.
4) The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. The integrity of this viewshed should be considered in addition to its rare, unique, and irreplaceable environmental values.

5) Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Questions

1) **How will the integrity of the Refuge be considered by the screening criteria?**
2) **How will the hydrodynamics of the Mendenhall Wetlands complex and Gastineau Channel be analyzed in relation to each potential crossing location?**
3) **How is the PEL study accounting for the fact that AS 16.20.034(i) only allows for establishment of a transportation corridor within the Refuge if the need cannot be met off-refuge?**
4) **Will the Refuge boundary be added to all future maps showing the proposed alternatives?**

Conclusion

SEALT is sharing these comments and questions for the PEL Study Team with the Technical Advisory Committee. We request the responses and answers be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

SEALT Comments on Juneau Douglas North Crossing PEL Study Preliminary Alternatives

February 3, 2023

The Southeast Alaska Land Trust (SEALT) submits the following comments to the PEL Study to identify our concerns about the study's process and impacts to the Mendenhall Wetlands State Game Refuge and SEALT in-lieu fee mitigation sites.

The long history of the concept of a second crossing to Douglas Island makes clear that the community is interested in this idea. There is also, however, documented community support for the preservation of the Mendenhall Wetlands State Game Refuge (Refuge).

While SEALT does not oppose the establishment of a second crossing, the habitat and recreation values of the Refuge, as well as the necessity of avoiding SEALT's in-lieu fee mitigation sites, should eliminate from consideration all crossing locations within the Refuge's boundaries. Only four of the eight preliminary alternatives appear to be outside of the Refuge and should be advanced for further consideration.

Process

SEALT has engaged in the PEL Study process by participation on the Technical Advisory Committee and provides the following pieces of feedback related to the Study's process.

Technical Advisory Committee Engagement

SEALT continues to be concerned that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. The Technical Advisory Committee (TAC) meetings since last spring have been exclusively in person, limiting the accessibility of the meetings. Furthermore, materials have not been provided in advance of meetings; it is unreasonable to expect meaningful contributions from committee members without advance time to review materials. Lastly, SEALT provided extensive comments and questions to the study team and TAC on December 20, 2022, requesting a response before Level 1 screening begins or by February 1, 2022. These comments were submitted in response to materials and information presented at the November 17, 2022 TAC meeting, on which the PEL Study team requested feedback. SEALT did not receive a response until close of business on February 2, 2023 (24 hours before closing of the public comment period).

SEALT is perplexed by the purpose of the Technical Advisory Committee, as the process has limited the ability of members to provide substantive contributions, and the PEL Study team has been alternately slow to respond or unresponsive to requests for additional information.

SEALT strongly urges the PEL Study team to meaningfully engage with relevant agencies and experts during the next stages, providing adequate time to review materials and provide feedback. The success of this study, and the project it may enable, will depend on proactive and meaningful collaboration with experts who can ensure that a truly appropriate alternative is selected.

Additional Context Needed

The preliminary second crossing location alternatives have been presented to the public, and comment requested, without context on traffic analyses, crossing design, feasibility, environmental concerns, or legal challenges.

At a minimum, all maps showing the crossing locations should include the boundaries of the Refuge. The community of Juneau has repeatedly demonstrated an interest in seeing the Refuge protected; leaving the Refuge off of the maps is misleading.

SEALT strongly suggests that the data being used to assess each preliminary alternative (relevant traffic studies, environmental resource data, Refuge boundaries, etc.) be shared with the Technical Advisory Committee and the public, so that each alternative can be reviewed in context.

Mitigation Site Protection

SEALT's primary priority is the protection of all of its conservation properties and in-lieu fee mitigation sites potentially impacted by the preliminary second crossing locations.

SEALT is an approved mitigation sponsor with the U.S. Army Corps of Engineers (USACE) and has operated an in-lieu-fee program in Southeast Alaska since 1998, providing compensatory mitigation services to developers seeking permits for projects that result in a loss of aquatic resource functions. SEALT's mitigation services are provided through voluntary transactions with willing landowners.

Mitigation Sites for the Juneau Airport

In 2009, SEALT provided wetland mitigation credits to the City and Borough of Juneau to compensate for the loss of aquatic resource functions resulting from the Juneau International Airport expansion into the Mendenhall Wetlands State Game Refuge. This required compensatory mitigation was outlined in the 2009 Department of the Army permit POA-1981-320-M22 and the April 2007 *Juneau International Airport Final EIS and Section 4(f) Evaluation)*. The 2007 EIS summarized the airport expansion's compensatory mitigation plan, stating that CBJ "would establish an in-lieu fee for the mitigation and provide the fee" to SEALT, in order for SEALT to acquire "accreted lands within the original Refuge boundary, with a goal of fully mitigating for direct unavoidable impacts to the Refuge and for unavoidable impacts to wetlands…caused by the Airport projects within the Refuge."

Since 2009, SEALT has used the in-lieu fee generated by the Juneau Airport expansion project to acquire 22 private parcels adjacent to the Mendenhall Wetlands State Game Refuge as wetland mitigation sites, in accordance with our in-lieu-fee program agreement with the USACE and the 2007 EIS. The SEALT mitigation sites around the Refuge were chosen for the Juneau Airport expansion's impacts specifically because they were the most appropriate in-kind mitigation, as their proximity and function matched the impacted aquatic resources.

Impacts to these mitigation sites would irreparably harm the Mendenhall Wetlands ecosystem and negate the in-kind compensatory mitigation completed for the Juneau Airport expansion. There are very few properties adjacent to the Refuge that would match the aquatic resource functions of the existing mitigation sites. For this reason, impacts to SEALT's mitigation sites would be nearly impossible to adequately mitigate.

Critical Wetland Continuity

In addition to avoidance of direct impacts to mitigation sites (e.g., construction within the legal boundaries of a mitigation site), off-site construction could lead to a significant or complete loss of aquatic resource function on SEALT's mitigation sites.

The construction of a bridge or causeway through the wetlands complex at any location will alter the hydrodynamics and could isolate mitigation sites from sustaining freshwater and tidal inputs, resulting in mitigation sites converting from wetland habitat to uplands. This would have the same result on the function of the in-lieu fee mitigation sites as construction on the site itself. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the intent of the Juneau Airport's mitigation plan and the mitigation plans for SEALT's mitigation sites.

The PEL Study should remove from consideration all alternatives 1) that pass through SEALT's 22 in-lieu fee mitigation sites or 2) are proximal to mitigation sites and constructed such that significant impacts to the hydrologic inputs are expected (i.e., a causeway).

Refuge Avoidance

Consistent with our 21-year effort to protect the boundaries of the Refuge through in-lieu fee mitigation sites, it is SEALT's priority to ensure the integrity of the Refuge and its habitat, recreation, and ecosystem services. Any crossing structure through the Refuge will irrevocably damage its functionality as a wildlife refuge, recreation destination, and scenic viewshed.

Off-Refuge Construction

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. The PEL Study has already identified several crossing locations outside of the Refuge's boundaries that would satisfy the Purpose and Need Statement as presented in November 2022. Therefore, in accordance with this statute, all other preliminary second crossing alternatives should be removed from consideration.

Fragmentation Concerns

Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge. Examples of the impacts of fragmentation include:

Refuge Users: A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.

1) A second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Perpetuating access to waterfowl hunting was a key reason for the establishment of the Refuge, and loss of this use would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
2) The location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, hunting, birding, fishing, and cultural activities.

Hydrodynamics: The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's hydrodynamic connectivity and continued functionality as a globally significant estuarine wetland.

Viewshed: The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. This viewshed should be preserved in addition to its rare, unique, and irreplaceable environmental values.

Noise: Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Avoiding Additional Impacts

Over 35-40% of the greater Mendenhall Wetlands complex has been filled by development. The PEL Study has already identified crossing locations outside of the Refuge's boundaries that meet the identified needs. There is ample opportunity to study potential second crossing locations that meet the communities needs and do not impact the Refuge's essential and diminishing resources.

The PEL Study should remove from consideration all alternatives that pass through the Mendenhall Wetlands State Game Refuge.

Conclusion

The Southeast Alaska Land Trust cannot support the PEL Study's preliminary alternatives that impact SEALT mitigation sites and/or the Mendenhall Wetlands State Game Refuge, including: "North Airport", "Sunny Point Area A", "Sunny Point Area B", and "Vanderbilt". These alternatives should be removed from consideration.

SEALT encourages the PEL Study to focus on preliminary alternatives that do not impact the Refuge, including: "Salmon Creek", "Eagle Creek", and "Downtown".

With careful study and design, the "Mendenhall Peninsula" alternative could be located and constructed in a way that would not impact mitigation sites or the Refuge.

SEALT is available for consultation on any alternatives, proposals, and concepts as necessary to develop a successful project that meets the needs of the community.

January 13, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has reviewed the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study (ADOT&PF, *Summary of Previous Studies, Reports and Findings*, May 2022), the Environmental Setting document (December 2022), the potential crossing ideas document, wetlands and waterways document, the Virtual Public House video presentation (May 11, 2022), Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023), meeting summaries, and baseline data available on the project website https://www.jdnorthcrossing.com/. The stated project purpose and need statement (Updated November 2022) of the JDNC PEL study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The PEL study states that the project need should address alternative access and transportation infrastructure resilience and decrease traffic pressure on Douglas Island Bridge and its intersections.

In an effort to participate in early planning and provide regulatory background, EPA is providing preliminary comments related to discharges under the Clean Water Act 404(b)(1) Guidelines (Guidelines). EPA is submitting these comments in response to the Alaska Department of Transportation and Public Facilities (ADOT&PF) JDNC project PEL study and associated materials, including project alternatives.

ALTERNATIVES ANALYSIS

According to the video presentation (May 11, 2022) the study team has not identified any route within the study area as the preferred alternative and seeks to work with the Technical Advisory Committee (TAC) to find the best solution. The video presentation states that in winter/spring 2023 detailed alternative screening results and recommended alternatives will be brought forward for future development and that comments will be accepted throughout the process. Fifteen preliminary Alternatives are described within the PEL study. On January 11, 2023 a map was provided to the TAC that depicts the further extension of the Bench Road to connect with the Mendenhall Peninsula alternative. The Alternatives Development Workshop document (July 19, 2022) includes Alternative Screening Criteria as Level 1 (Baseline Purpose and Need Criteria and Level 2 (Qualitative Criteria). An alternative must score positive in all criteria under Level 1 to advance to the Level 2. Level 2 criteria include impacts to waters of the U.S. including wetlands.

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. The Guidelines at 40 CFR § 230 are the substantive environmental criteria for the evaluation of proposed discharges of dredged or fill material into Waters of the United States (WOTUS), including wetlands. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines at 40 CFR § 230.10 identify several specific restrictions on discharges. The first of these, at 40 CFR § 230.10(a), specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[1] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[2]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Once the LEDPA has been identified, that is the version of the project which is evaluated against the other restrictions on discharge found in subsections § 230.10(b), (c), and (d).

The JDNC project proposes to construct a second crossing near Juneau to connect with Douglas Island. The proposed project will require fill in the intertidal areas including estuarine and marine deepwater WOTUS. Any alternative that requires the "Bench Road" would result in additional wetland fill on the Douglas Island side. It is not clear at this stage of the Project which of the alternatives may represent the least environmentally damaging practicable alternative (LEDPA) to achieve the project purpose, however all appropriate and practicable steps must be taken to avoid, minimize, and compensate for remaining impacts to aquatic resources, consistent with 40 CFR § 230.10(a) and (d) of the Guidelines. As noted in the Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023) ADOT&PF is required to evaluate and identify the LEPDA to avoid and minimize impacts of WOTUS to the maximum extent practicable. Because the Project has presented more than fifteen crossing alternatives, EPA finds it especially prudent at this time to provide information on the requirements under the Guidelines to help identify the LEDPA alternative. EPA is pleased to see the Project's baseline National Wetlands Inventory and City and Borough of Juneau (Figure 2 data) wetlands mapping efforts as part of the baseline for use towards this evaluation.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at [redacted] or by email at [redacted], or you may contact Betsy McCracken at [redacted] or by email at [redacted]

Sincerely,

Amy Jensen,
Regional Wetland Coordinator
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[1] 40 CFR § 230.10(a)(2)
[2] 40 C.F.R. § 230. 10(a)(3).

From: Dave Hanna
To: Margo Waring
Cc: Morgan McCammon; [redacted] Edward Schoenfeld; Spencer, Karl [redacted]; Cathy Schlingheyde; [redacted]; Daniel King; Matt Robus; Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; irene.gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell; Barb Mecum; Merry Ellefson Wayne Carnes; fernleafgt; [redacted]; Ben Hohenstatt; Rep. Andi Story
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee
Date: Wednesday, January 11, 2023 10:23:46 AM

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Greetings all,
In regards to Ms. Warings' comments on mission creep, I believe she is splitting hairs here as well as misconstruing the intent. If the language didn't say the north end of Douglas island it could move the crossing south of the current bridge. Looking at a map shows that anything north of the bridge is on the north end of the island. And as far as " affordable housing" location criteria, public utilities are actually available all the way out to Bayview Subdivision, and no matter where subdivisions are built, clearing and filling are necessary. Indeed one of the largest expenses is filling, and the far north end of the island has rock resources on the actual subdivision sites which drastically reduces the cost of development. I commend the work of the team so far in recognizing all the aspects to consider in this study.
Respectfully,
Dave Hanna

On Mon, Jan 9, 2023 at 1:14 PM Margo Waring [redacted] > wrote:

> Thank you for sending along these materials. My comments are below.
>
> The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island.
>
> This is "purpose creep" and a focus created by the PEL Study Team that is unfair to both the original intent and to public process. It is not the job of the PEL Study Team to re-write the study's purpose to skew favor toward one or more alternatives, perhaps expecting that we will not notice as our eyes slide over the bureaucratic language.
>
> The study has all along used the purpose language of : "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What makes for affordable housing? Experts know that affordable

housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable population and where existing services and infrastructure exist.

That leaves as a purpose "economic development", the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.

On Jan 9, 2023, at 10:05 AM, Morgan McCammon [redacted]> wrote:

draft Recommended Alternative Selection Criteria Memo

MEMORANDUM

State of Alaska

Department of Fish and Game
HABITAT SECTION

TO:	Marie Heidemann Transportation Planner DOT&PF	DATE:	February 3, 2023
		FILE:	Gastineau Channel Bridge: DOT Second Crossing
		SUBJECT:	Juneau Douglas Second Crossing PEL #SFHWY00299
FROM:	Jesse Lindgren JL Habitat Biologist	PHONE NO:	(907) 465-1635

Alaska Department of Fish and Game (ADF&G) biologists have reviewed the Alaska Department of Transportation and Public Facilities (DOT&PF) preliminary alternatives and screening as part of the Juneau Douglas second crossing PEL study (State Project #SFHWY00299); Division of Wildlife Conservation Juneau Area Management Biologist Roy Churchwell and I are members of the technical advisory committee.

The Mendenhall Wetlands State Game Refuge (Refuge) management plan includes goals for wildlife, fish, and public use and existing policies to guide decisions on management activities. One of the policies is for a transportation corridor, "The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of the refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel." A Special Area Permit from Habitat Section would be required for Juneau Douglas second crossing activities located on the Refuge.

The Refuge is designated as a globally recognized Important Bird Area. In general, the area around the Mendenhall River mouth and along Twin Lakes are hotspots for birds using the Refuge. As for number of species of birds, the Mendenhall River and near the airport as well as Sunny Point have the highest number of species. Bird species can be specific in the habitats they use, other areas of the Refuge may be important to specific species; please consult with Mr. Churchwell for more details on important wildlife areas.

The Refuge includes over 28 streams providing habitat for Chinook, chum, coho, sockeye, and pink salmon, Dolly Varden, and cutthroat and steelhead trout. An ArcGIS shapefile of the steams in the project area can be obtained by contacting me. The Refuge provides rearing habitat and a migration corridor for salmonoids. Fish Habitat Permits from Habitat Section would be required for Juneau Douglas second crossing activities involving anadromous and resident fish steams.

The Refuge supports recreational use through 13 access points commonly used for hunting, fishing, gathering, hiking, dog walking, nature watching, and photography to name a few. According to hunter data submitted to ADF&G, waterfowl hunting on the Refuge accounts for over 2,000 hunter days by 350 to 400 permit holders harvesting 3,000 to 4,000 waterfowl annually. Sunny Point is the most popular entrance onto the Refuge with 36% of use, the Airport Dike is the next most popular entrance with 27% of use, other popular hunting entrances include the Mendenhall Peninsula with 16% and the Nine-mile area on Douglas Island with 17% of the use. The Sunny Point area bridge or the North Airport tunnel alternatives could pose challenges to waterfowl hunting by eliminating a high use access point and may restrict hunting on the Refuge.

Fishing is a popular activity on the Refuge and in Gastineau Channel. Many anglers fish around Fish Creek and the Fish Creek Pond with heavy use starting in June through September. Anglers also fish Gastineau Channel from the Refuge shore during low tide and by boat during high tide; this is becoming increasingly popular for fly fishing anglers. Finally, at the very southern end of the Refuge by Salmon Creek, anglers fish near the hatchery July through September. Fritz Cove provides important habitat for Dungeness and red king crab which support valuable personal use fisheries. Crab pots often line the western portion of the Refuge, and many boats troll in Fritz Cove from June through September; the Mendenhall Peninsula bridge, depending on location, could alter use in Fritz Cove.

Hikers, dog walkers, photographers, and nature viewers use the Refuge with the most popular access points being the Airport Dike trail and Industrial Boulevard trail. While there is not specific user data, hundreds of people use these trails daily and on sunny days, use increases to thousands of people.

The Refuge is also important for subsistence gathering for food and materials for crafts for native peoples and other users. Many elders use the Refuge because of the ease of access and because it is close to town.

These general comments are intended to summarize Refuge uses by wildlife, fish, and the public. There are other animal and human uses that occur on the Refuge that can be addressed when more specific plans or information is available to review. A crossing between the south side of the Mendenhall Peninsula and the south side of Sunny Point may have greater impacts to the Refuge than the other alternatives. The use of pilings versus fill would reduce impacts to important ecological functions in the Refuge.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Matt Catterson, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Andrew Olson, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Christy Gentemann, DOT&PF, Juneau
Nina Keller, DOWL, Juneau
Morgan McCammon, DOWL, Juneau
Steve Noble, DOWL, Anchorage
Ben Soiseth, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau

The Friends of Fritz Cove's Petition (we are up to 87 signers and growing, includes neighbors from the Mendenhall Peninsula, Fritz Cove Road, Bayview Subdivision, and neighbors out past Fish Creek) opposes the location of a second crossing at the Mendenhall to the North Douglas Boat Launch. This location is the most expensive and most environmentally damaging of all the alternatives. I believe a bench road from the existing bridge to Eaglecrest makes the most sense for now. It can be extended at some future point and will relieve the current and future pressure of traffic on our residential road so our children are again able to ride their bikes and pedestrians are safe. If there must be a second crossing, a crossing at Sunny Point makes use of the existing intersection that is well-designed for this purpose. Any bridge built here must allow the tide to freely ebb and flow. On the mainland side, it will need to avoid property owned now by the SE Land Trust Conservancy which seems do-able. If this alternative is chosen, impacted homeowners on the Douglas side need to be promptly notified so they are able to navigate the Rite of Way process. Thank you!

Barb Mecum [redacted]

From: Vigil, Randal P CIV USARMY CEPOA (USA)
To: PUB-JDNorthCrossing; Heidemann, Marie E (DOT)
Cc: Morgan McCammon; Daugherty, Leslie K (DOT); [redacted] Mercer, Jennifer A CIV USARMY CEPOA (USA); [redacted] "Katie Koester"; "Meitl, Sarah J (DNR)"; Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); Kolwaite, Douglas S (DOT); christina.mounce; irene.gallion; Alec Venechuk; Steven Noble; Renee Whitesell; Nina Keller Horne; Jovie Garcia; Theresa Dutchuk; Michael Horntvedt; Mike Hall; Marella Gungob; Sean Holland; Ryane Gray
Subject: [EXT] Juneau Douglas Crossing PEL
Date: Friday, February 3, 2023 1:54:36 PM
Attachments: image001.png

Some people who received this message don't often get email from [redacted] Learn why this is important

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Ms. Marie Heidemann,

The U. S. Army Corps of Engineers (USACE) has reviewed the proposed Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study. This email provides the USACE comments on the PEL study.

Project Purpose: The definition of overall project purpose is used in the determination of practicable alternatives since the Environmental Protection Agency's 404(b)(1) Guidelines (Guidelines) define practicable to mean: "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes (40 CFR 230.10(a)(2))." While the definition of overall project purpose is solely the USACE's responsibility, it must take into consideration the applicant's stated purpose for the project (July 2009, Army Corps of Engineers Standard Operating Procedures for the Regulatory Program.).

If a permit applicant has limited their purpose in such a way that the alternatives analysis would be constrained, then the USACE will re-define the overall project purpose in order to allow for consideration of an appropriate range of alternatives. The PEL and any future NEAP document purpose statement should allow for the generation of a range of alternatives for a meaningful analysis under the Guidelines.

Alternative Analysis: Clean Water Act (CWA), Section 404 permits are only issued for projects that clearly demonstrate compliance with the Guidelines. The Guidelines state that no discharge of dredged or fill material can be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In those cases where non-water dependent work is proposed in a "special aquatic site" (such as wetlands, eelgrass beds, or mudflats), practicable alternatives are presumed to exist unless clearly demonstrated otherwise by the applicant. Also, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into to a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated

otherwise.

An alternative is considered practicable if it is available and capable of being accomplished after taking into consideration costs, existing technology, and logistics in light of the overall project purpose. The least environmentally damaging practicable alternative may include construction in upland, reducing the size of the proposal to the minimum discharge necessary for the project, or the inclusion of logistic and operational controls.

The PEL and any future NEAP document should clearly outline the site selection/screening criteria for the practicability for the alternatives considered. Examples may include: criteria related to availability (i.e. available for acquisition, zoned appropriately or potential for re-zoning); cost (i.e. reasonable acquisition or development costs); technology (i.e. whether existing technology is available to address any site constraints like steep topography); and logistics (i.e. location of parcel within certain distance of particular facilities/city boundaries/highway and/or utility infrastructure; adequacy of parcel size; availability of utilities; availability for access, etc.). Consider establishing criteria that are minimum/maximum or pass/fail (e.g., at least 15 acre size (minimum size); ability to connect to utilities (sewer, electricity) (pass/fail).

Evaluation for compliance with the Section 404(b)(1) Guidelines: Under the 404(b)(1) Guidelines, no discharge can be permitted if there is a practicable alternative with less adverse impact on the aquatic environment, unless the alternative has other significant adverse effects on the natural environment (40 CFR § 230.1 0(a)).

In addition, no discharge can be permitted under the Guidelines if it would, individually or cumulatively, cause or contribute to significant degradation of waters of the United States (U.S.), or violate other applicable laws, such as State water quality standards, toxic effluent standards, or the Endangered Species Act. The Guidelines also state that no discharge in wetlands shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.

In determining whether the proposal complies with Guidelines, the USACE must assess potential impacts on the aquatic ecosystem, including substrate, suspended particulates/turbidity, water, current patterns and water circulation, and normal water fluctuations. Information regarding these factors should be included to evaluate these impacts.

Potential impacts to wetlands should be included in the analysis. In order to assess impacts to wetlands, a range of design for a proposed second crossing near Juneau to connect with Douglas Island, any alternative that requires the “Bench Road”, transportation improvements for non-motorized users and transportation related energy consumption reduction, and transportation improvements for infrastructure resilience and reduction in traffic pressure on Douglas Island Bridge and its intersections.

Potential impacts on the human use characteristics (subpart F 40 CFR 230.50) should be addressed including recreational and commercial fisheries, water-related recreation, aesthetics, including wildlife refuges.

In order to evaluate possible contaminates in dredge and fill materials, a pre-testing evaluation should be conducted to determine if there are sources of contamination and harmful quantities to the aquatic environment by man-induced discharge activities (subpart G, 40 CFR 230.60). An example specific to this project are naturally occurring deposits of acid generating rock and arsenic within the proposed project area, however the other potential sources of contaminates should be examined as well.

The PEL and any future NEPA document should include analysis of effects to populations of fish and wildlife, alteration of substrate, water levels, water flow, water quality, migration corridors, food supply, a change in breeding and nesting areas, and animal travel corridors associated with aquatic ecosystems.

Under the USACE's substantive evaluation criteria for all CWA, Section 404 permits, the Guidelines, mitigation is a sequential process of avoidance, minimization, and compensation. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. Only upon clear demonstration of compliance with the first two steps in the mitigation sequence does the Corps take the third step, which would be addressed during the review of a DA permit application for the proposed undertaking, should one be submitted.

Avoidance measures are the planning strategies that entirely eliminate the discharge of fill material into the aquatic ecosystem to achieve the project purpose. A key requirement of compliance with the avoidance sequence of the Guidelines is to show whether or not an aquatic resource can be completely avoided. Minimization entails measures to reduce or diminish the impacts to aquatic resources.

There are two overarching themes that affect how the mitigation sequencing is conducted. One is that although the burden of proof for satisfying these steps rests with the permit applicant, the USACE must rely upon its own analysis in making a finding of compliance or non-compliance with the Guidelines. The applicant must provide information that is sufficient to determine compliance, so the USACE can make a timely permit decision. In order to determine if project component locations can be shifted to avoid or minimize impacts, a functional or aquatic site assessment is required.

Because this proposal would appear to result in the loss of waters of the U.S., including wetlands, future documentation should include a mitigation section that contains a discussion describing how impacts to waters of the U.S. are to be avoided and minimized. This information must be specific to the proposed work and sufficient for the Corps' Guidelines analysis.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest (33 CFR 320.4). To the extent appropriate , the public interest review would include consideration of policies as described in 33 CFR 320.4(b) through (r), which include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain value, land use, navigation, shoreline erosion and accretion,

recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, needs and welfare of the people.

Evaluation of the probable impact that the proposed activity may have on the public interest requires a careful weighing of all the factors that are relevant to the project. The benefits that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.

The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process of these factors.

The USACE appreciates the opportunity to comment. Please contact Randal Vigil via email at [redacted], by mail at the address above, or by phone at [redacted] if you have questions.

Sincerely,

Randal P. Vigil
Project Manager
Regulatory Division

US Army Corps of Engineers®

[redacted]

From:	Morgan McCammon
To:	Hillgartner, Megan G (DNR); Heidemann, Marie E (DOT)
Cc:	Nina Keller Horne; PUB-JDNorthCrossing
Subject:	RE: [EXT] RE: DOTPF N. Douglas Crossing PEL Study - DNR Comments
Date:	Tuesday, February 7, 2023 9:50:32 AM

Good morning Megan,

Thank you for sharing these comments.

Morgan McCammon
Public Involvement Specialist

DOWL

(907) 562-2000 | office
[redacted]

dowl.com

From: Hillgartner, Megan G (DNR) [redacted]
Sent: Tuesday, February 7, 2023 8:52 AM
To: Heidemann, Marie E (DOT) <[redacted]>
Cc: Morgan McCammon <[redacted]>; Nina Keller Horne [redacted]>
Subject: [EXT] RE: DOTPF N. Douglas Crossing PEL Study - DNR Comments

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Thank you, Marie, I appreciate it. My procedure went well and I should be home in Juneau by the end of the week!

DNR's comment (please let me know if you have any questions):

Thank you for the opportunity to comment on the Department of Transportation and Public Facilities (DOTPF)/City and Borough of Juneau (CBJ) *Juneau-Douglas North Crossing Planning and Environmental Linkages (PEL) Study*.

The PEL study area encompasses lands managed by the Alaska Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), including tide and submerged lands underlying Gastineau Channel and Fritz Cove and land within the Mendenhall Wetlands State Game Refuge (MWSGR).

Per AS 16.20.034 and the 1993 Juneau State Land Plan, DNR maintains management authority of the surface and subsurface estate within the MWSGR and is directed to ensure that actions taken within the refuge are in conformity with the 1990 Alaska Department of Fish and Game (ADFG) MWSGR Management Plan. As required by AS 16.20.034, the ADFG MWSGR Management Plan contains provisions by which CBJ may acquire land from DNR for the purpose of establishing public transportation corridors[1].

At this time, DNR does not have any comment regarding the PEL Study alternatives, screening

process, or alternatives criteria. DNR notes that any disposal of resources on state land within the MWSGR or within DMLW-managed tidelands and submerged lands requires authorization from DNR.

[1]*AS 16.20.034(j): Notwithstanding the provisions of (d) — (i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that there is a superior public need for or use of the land to its use as a state game refuge, after public hearing and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling, or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560 — 44.62.570.*

Thank you!

Megan G. Hillgartner
Southeast Regional Manager

Alaska Department of Natural Resources
Division of Mining, Land and Water
Southeast Regional Land Office
[redacted]

From: Heidemann, Marie E (DOT) [redacted]
Sent: Friday, February 3, 2023 5:50 PM
To: Hillgartner, Megan G (DNR) <[redacted]
Cc: Morgan McCammon <[redacted]>; Nina Keller Horne [redacted]>
Subject: Re: DOTPF N. Douglas Crossing PEL Study - DNR Comments

Hi Megan,

We will accept your comments on the 8th.

I hope your procedure goes well.

Marie

From: Hillgartner, Megan G (DNR) <[redacted]
Sent: Friday, February 3, 2023 3:58 PM
To: Heidemann, Marie E (DOT) <[redacted]
Subject: DOTPF N. Douglas Crossing PEL Study - DNR Comments

Hi Marie,

My apologies for last minute notice – if possible, I would like to request a short extension to submit

our comments on the DOTPF PEL study. I had to fly down to Seattle yesterday and have a minor surgery scheduled for this coming Monday. I am working with my staff to finalize our comments and should be able to provide input to you by **2/8 (Wednesday) at noon**.

Again, I apologize for the delay. Please let me know if this is feasible for you and if you have any questions.

Thanks,

Megan G. Hillgartner
Southeast Regional Manager

Alaska Department of Natural Resources
Division of Mining, Land and Water
Southeast Regional Land Office
[redacted]

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[1]AS 16.20.034(j): Notwithstanding the provisions of (d) — (i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that there is a superior public need for or use of the land to its use as a state game refuge, after public hearing and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling, or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560 — 44.62.570.

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
Anchorage Fish and Wildlife Conservation Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO, AFWCO

Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Screening Process and Preliminary Alternatives (Service File Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the screening process and preliminary alternatives developed for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. Preliminary alternatives were developed jointly by the project team and members of the Technical and Stakeholder Advisory Committees in July 2022. These alternatives underwent a pre-screening process, during which some were advanced, some were combined, and some were eliminated altogether. Two additional screening processes will occur during the PEL Study. The Level 1 screening will be completed with minimal additional data collection; alternatives that fail to meet the purpose and need, as well as a range of qualitative evaluation criteria will be removed from further consideration under this screening process. The Level 2 screening will evaluate the detailed alternatives using a broad range of criteria and will consider the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent

species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Screening Process

- The Service appreciates the opportunity to provide comments during the Level 1 screening process; however, our staff were unable to attend previous in-person-only meetings in Juneau. We therefore request that future Technical Advisory Committee meetings be offered virtually to ensure greater participation by technical experts.
- We also recommend consultation with the Douglas Indian Association and the Central Council of Tlingit and Haida Indian Tribes of Alaska throughout the screening process.
- It was noted that a "No-build Alternative" is being considered, but it was not included as a Preliminary Alternative in the screening process. We feel it is important that this alternative be discussed alongside all other potential alternatives and that the Advisory Committees have the opportunity to provide comments on this alternative as well.
- What are the next steps for Level 1 and Level 2 screening? How and when will the results of the screening process be communicated with the Technical and Stakeholder Advisory Committees?
- Will there be an opportunity during the PEL Study for Advisory Committees to review in more detail the anticipated project activities and resulting impacts to wildlife and their habitats under each alternative? This information would provide important context for determining the need for permits and authorizations under each alternative.
- The Service would appreciate additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

<u>General Comments</u>

- We recommend that all relevant resource agencies, organizations, and Tribes be contacted directly to ensure that baseline environmental data being evaluated within the study area is up-to-date and comprehensive. This includes but is not limited to: wetland and vegetation classifications, plant and animal species occurrence data (especially invasive species, sensitive or rare species, subsistence species, and protected species), and wildlife habitat types (e.g., upland habitat, Essential Fish Habitat, anadromous streams).
- It would be helpful to see a map with the Preliminary Alternatives overlayed on the Mendenhall Wetlands State Game Refuge (Refuge). Given the global importance of the Refuge for migratory birds and its already compromised status, being surrounded by major urban development, it will be helpful to be able to visualize the alternatives that will have a direct impact within Refuge boundaries.
- The Southeast Alaska Land Trust (SEALT) owns mitigation sites adjacent to the Refuge and some of the proposed crossings. It will be imperative to work closely with the Alaska Department of Fish and Game (ADFG) and SEALT to understand the direct and

indirect impacts of each of the potential crossings on hydrologic connectivity within the Refuge and the adjacent mitigation sites. This connectivity is essential to its continued function as an estuary and as important bird and fish habitat.

Avoidance and Minimization Measures for Service Trust Species

- We recognize that the Service, Information for Planning and Consultation (IPAC) website indicates that the federally endangered short-tailed albatross (*Phoebastria albatrus*) may use habitats in the study area. However, short-tailed albatrosses are generally associated with shelf break and slope regions of the northwestern Pacific Ocean and the Bering Sea, which do not exist within the study area. Therefore, we do not expect the presence of short-tailed albatross within the vicinity of the potential crossings. If it is determined that there will be no effect on the albatross within your action area, no additional Endangered Species Act consultation with the Service is needed.
- Although northern sea otters (*Enhydra lutris kenyoni*) are not commonly observed within the area of the potential crossings, if it is determined that there may be impacts to northern sea otters from project activities, we recommend you reach out to our Marine Mammals Management (MMM) Regulatory Program Lead, Sierra Franks, at sierra_franks@fws.gov, for further coordination.
- The study area, and especially the Refuge, supports a diverse assemblage of bird species. The Mendenhall Wetlands complex has the third greatest acreage of vegetated tidal salt marsh of all estuaries in Southeast Alaska, and it is a key migratory waterfowl and shorebird stopover location in coastal Alaska. The network of brackish sloughs and ponds contained within the complex are used significantly by waterbirds, songbirds, and raptors for resting and foraging (Audubon 2023, website). This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including marbled murrelets (*Brachyramphus marmoratus*), olive-sided flycatchers (*Contopus cooperi*), rufous hummingbirds (*Selasphorus rufus*), black oystercatchers (*Haematopus bachmani*), marbled godwits (*Limosa fedoa*), and rock sandpipers (*Calidris ptilocnemis*). We recommend that screening of all preliminary alternatives prioritizes these environmental conditions and species of concern, and that crossing locations within these important areas be avoided if possible. Any potential impacts to birds or their habitats would be subject to evaluation under the Migratory Bird Treaty Act.
- Bald and golden eagles also occur within the study area and may be impacted by the proposed crossings. Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the selection of the final alternative (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these

surveys, together with guidance from the Service, will help determine which crossings may be detrimental to eagles, appropriate avoidance and minimization measures that may be recommended, and whether a permit may be needed.

- The rivers and streams occurring within the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur.
- Although amphibians and mammals in the study area are not explicitly protected by the Service under Federal law, these taxa are considered trust resources under the Fish and Wildlife Coordination Act, which directs the Service to evaluate impacts to fish and wildlife from proposed water resource development projects and to provide recommended measures to mitigate such impacts. Therefore, we recommend that the most up-to-date information on amphibian and mammal populations and habitat be compiled and included in future screening efforts, and that alternatives selected for consideration have the lowest possible impact on these wildlife communities.

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at 907-231-5850 or sarah_markegard@fws.gov and reference Service File Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

Literature Cited

Audubon. 2022. Important Bird Areas: Mendenhall Wetlands, Alaska website. Accessed January 31, 2023. https://www.audubon.org/important-bird-areas/mendenhall-wetlands

Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department of Natural Resources (Office of Habitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off-Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending on the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment…" and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden – Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden (*Salvelinus malma*) in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery – Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance – On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus*, in Southeaster Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R. H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R. H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn—access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (O. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and K V. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL;
http://www.ecologyandsociety.org/vol14/ iss1/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Shortbilled Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose (*Branta canadensis fulva*), which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards**. They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle**--In 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird—too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Hodges, J. I., and B. Conant 1986. Experimental Vancouver Canada Goose Survey – Northern Portion of Southeast Alaska. Waterfowl Investigations, U.S. Fish and Wildlife Service, Juneau, Alaska. 9 pp.

King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

Watson, S. 1979. Avian habitats and use of the Mendenhall Wetlands Wildlife Refuge, 30 April-30 June 1979. ADF&G unpublished report, Juneau, AK 28 pp.

Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles (*Microtus longicaudus*) are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
JUNEAU AREA OFFICE

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22 December, 2003

Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Lukshin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview

The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review of DNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion (*366-045-84* and *366-122-84*, 11/8/85), addresses in detail the land management authorities of DNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals (*Refuge Mgmt Plan 5 AAC 95.520*): "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--
*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700—760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not taking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.10) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. "

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations
Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria
Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment
Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information
We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle
Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
Robin Willis, ADF&G, Anchorage
Wayne Dolezal, ADF&G, Anchorage
Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
PRELIMINARY ALTERNATIVES AND SCREENING CRITERIA

JANUARY 31, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the preliminary alternatives for a second crossing between the mainland and Douglas Island, and the technical memorandum outlining screening criteria, and has the following comments:

1. Our committee commends the study team for including mention of a bench road as a concept that should be evaluated. *See* Summary of the Stakeholder Advisory Committee Meeting 2 (November 17, 2022). We understand that a bench road is not directly part of the PEL study of crossing alternatives but would be a separate, standalone project. The study team recognizes, however, that concerns regarding traffic on the North Douglas Highway, particularly regarding safety and capacity, are significant. We therefore recommend that the selection criteria be revised to include the potential for connection to a bench road as a factor that should be considered in evaluating the crossing alternatives.

This does not equate to endorsement of a bench road. Our prior survey of North Douglas homeowners (the results of which we previously provided to the study team) indicated a split of opinion on support for a bench road, 60 % in favor and 30 % opposed. But we do believe such a road – which would function similar to the Auke Rec/Lena bypass highway – should be reflected in the analysis.

We further understand that DOWL is in the process of completing a traffic study for the North Douglas Highway, and look forward to seeing the results of that work. Our committee continues to believe that a second crossing of Gastineau Channel, along with attendant development on North Douglas, will lead to a substantial increase in traffic along the highway, which is a major concern for NDNA.

2. As the committee has previously expressed to the study team, NDNA has for 20 plus years been requesting the CBJ to undertake an area planning process for North Douglas, much like it has done for other areas in Juneau. This is not something within the scope of the PEL study or for which DOWL has any responsibility; rather, it is a process within the authority of the CBJ and its planning department. Our committee has renewed discussions about an area planning process for North Douglas with Assembly members and CBJ planning staff, but have been advised that their next order of business is to review and revise the overall CBJ comprehensive plan before committing to another area-specific plan. Obviously, that process, if it were to occur, would take place after identification of a preferred crossing alternative through

the PEL study. This sequence is unfortunate, in our view, because a North Douglas Area Plan might well inform decision-making related to a crossing, including whether a second crossing is even needed.

For instance, the purpose and need statement lists as an additional goal of a second crossing "creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What if an area-specific planning process for North Douglas leads to a conclusion that this goal is not realistic? That any housing developed on the west side of Douglas Island is unlikely to be "affordable," or that there is little commercial interest in establishing a port in the vicinity of Hilda Creek. Wouldn't it be better to know that before a crossing alternative is selected?

3. In reviewing the descriptions of the various alternatives, we noted a difference in wording that could impact how the alternatives will be analyzed. All but two of the descriptions of the alternatives includes some recognition of effects on North Douglas homeowners in the immediate vicinity of the crossing location. For example, for the Mendenhall Penninsula location it says that impacts to existing residential homeowners will be a key consideration. For the North Airport location, it says there would be exploration of alignment alternatives that reduce impact to residential properties in Douglas Island. And for Vanderbilt, Twin Lakes, Salmon Creek and Eagle Creek there is mention of the need for right-of-way acquisition.

The description of the Sunny Point and Twin lakes alternatives is different, however. For Sunny Point, it says that there is an opportunity to connect to North Douglas Highway on property owned by CBJ. And for Twin Lakes it says that there is space to connect to North Douglas Highway. Thus for these two alternatives, there is no mention of either a need to consider an alignment that reduces impact to residential properties or a need for right of way acquisition. Our committee recommends that the descriptions of the various alternatives should reference the same list of criteria that will be used for analysis.

4. Prior studies of a second crossing (*e.g.,* the Project Development Summary Report (HDR Alaska, Inc., May 2005, and North Douglas Crossing Public Involvement Project (Sheinberg, April 2007)) evaluated the various crossing alternatives in part based on the nature of the crossing – embankment with a fixed span or structure-supported roadway. In other words, a filled causeway with a bridge over the main channel versus a crossing built on pilings. The differences between the two are significant in terms of environmental impacts and cost. The screeing criteria do not appear to account for this difference, and application of those criteria could yield very different conclusions depending on how a crossing was constructed. We encourage the study team to provide more clarity on this point.

NDNA appreciates the opportunity to comment on the preliminary alternative and selection criteria, and looks forward to continuing to work with DOWL and DOTPF in the PEL study process.

From: Linda Shaw - NOAA Federal
To: Morgan McCammon
Cc: Churchwell, Roy T (DFG); Daugherty, Leslie K (DOT); Alimi, Adeyemi S (DEC); Kanouse, Kate M (DFG); Meitl, Sarah J (DNR); [redacted]; Patty Wahto (DOT-sponsored); david.gann; [redacted]; Rypkema, James (DEC); [redacted] Daniel J (DFG); Purves, Nathan A (DOT); Bjornlie, Nichole L; Markegard, Sarah T; [redacted]; Kroes, Preston M (DNR); [redacted] Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; irene.gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell
Subject: Re: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee
Date: Wednesday, January 11, 2023 11:28:03 AM

Hi Morgan,

NOAA FIsheries Habitat Conservation Division would assess alternatives based on those that present the least impact to essential fish habitat (EFH) from wetland, riparian, shoreline or waterbody fill, or that compromise previous compensatory mitigation. The permitting federal agency with a nexus to EFH consultation requirements would need to prepare a detailed EFH assessment based on the specific project proposals for our review.

To provide a broad brush perspective, alternatives that move away from the existing bridge look to have progressively higher impacts. However, this will depend on their specific footprint and nature of impact

Linda

Linda Shaw (she | her)
Wildlife Biologist, Alaska Region
NOAA Fisheries | U.S. Department of Commerce
[redacted]
https://www.fisheries.noaa.gov/region/alaska

On Wed, Jan 11, 2023 at 10:01 AM Morgan McCammon <[redacted]> wrote:

> Hi Roy and Technical Advisory Committee Members,
>
> Based on comments received to date, the Sunny Point Area preliminary alternative has been modified to include a secondary possible entrance on the mainland side. To be clear, we are inviting you to share your thoughts on all the preliminary alternatives and the screening process including the screening criteria by February 3, 2023.
>
> Best regards,
>
> **Morgan McCammon**
> Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Churchwell, Roy T (DFG) <[redacted]
Sent: Wednesday, January 11, 2023 9:36 AM
To: Morgan McCammon [redacted]>; Daugherty, Leslie K (DOT) [redacted]v>; Alimi, Adeyemi S (DEC) <[redacted]; Kanouse, Kate M (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]ov>; [redacted]g; Patty Wahto (DOT-sponsored) [redacted]ort.com>; david.gann <[redacted]v>; linda.shaw [redacted]>; J[redacted] [redacted]rmy.mil; [redacted]; Rypkema, James (DEC) [redacted]ka.gov>; [redacted]; Cody Hargreaves <[redacted]; Teske, Daniel J (DFG) [redacted]>; Purves, Nathan A (DOT) [redacted]; Bjornlie, Nichole L [redacted]; Markegard, Sarah I [redacted] Kroes, Preston M (DNR) <[redacted]; [redacted] <[redacted]>
Cc: Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted]v>; christina.mounce <[redacted]>; irene.gallion <[redacted]>; Alec Venechuk [redacted]>; Steven Noble <[redacted]>; Nina Keller Horne <[redacted]com>; Renee Whitesell [redacted]>
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello Morgan,

I think the issue is (at least for me) that the map you have provided has all of the alternative routes on it, but you have asked us for additional comments on an added route. Unfortunately, I am not sure which one that is. Can you provide a map with that one route delineated?

Roy

From: Morgan McCammon [redacted]>
Sent: Wednesday, January 11, 2023 9:28 AM
To: Daugherty, Leslie K (DOT) [redacted]; Alimi, Adeyemi S (DEC) <[redacted]>; Kanouse, Kate M (DFG) [redacted]; Churchwell, Roy T (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted] Patty Wahto (DOT-sponsored) [redacted]; david.gann <[redacted]>; linda.shaw [redacted] Rypkema, James (DEC) [redacted]; Cody Hargreaves <[redacted]; Teske, Daniel J (DFG) [redacted]; Purves, Nathan A (DOT) [redacted]v>; Bjornlie, Nichole L <[redacted]>; Markegard, Sarah I [redacted]; Kroes, Preston M (DNR) [redacted] Katie Koester <K[redacted]
Cc: Heidemann, Marie E (DOT) <[redacted]>; Gentemann, Christy D (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted] Kolwaite, Douglas S (DOT) [redacted]>; Mounce, Christina L A (DOT) [redacted]>; irene.gallion [redacted]>; Alec Venechuk [redacted]>; snoble [redacted] Nina Keller Horne [redacted] Renee Whitesell <[redacted]>
Subject: RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

It has come to our attention that some committee members are having difficulty locating the modified preliminary alternatives through the link. Please see the attached map. Again, please let me know if you would like to schedule a meeting with the study team to discuss any questions or comments about the study or progress.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

(907) 562-2000 | office

[redacted]

dowl.com

From: Morgan McCammon
Sent: Monday, January 9, 2023 9:57 AM
To: [redacted]
Cody Hargreaves <[redacted]; Katie Koester [redacted]>
Cc: Heidemann, Marie E (DOT) [redacted]>; Alec Venechuk <[redacted]; Steven Noble [redacted] Nina Keller Horne <[redacted]>; Renee Whitesell <[redacted]>
Subject: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

Good morning Technical Advisory Committee Members,

Thank you for participating in the Technical Advisory Committee because your input is valuable to the PEL study process. The survey comment period is being extended until **February 3, 2023** because, based on comments received to date, the Sunny Point Area preliminary alternative has been modified to include a secondary entrance on the mainland side. We would like to invite you to share your thoughts on the preliminary alternatives and the screening process presented at the Public Open House and the last advisory committee meeting via the online survey. To view these materials, click here: Juneau Douglas North Crossing, or visit the website at www.jdnorthcrossing.com. We will close

the survey at 5:00 pm on **February 3, 2023**.

Please see the attached draft Recommended Alternative Selection Criteria Memo and summary from the November 17, 2022, Technical Advisory Committee meeting.

Please let me know if you would like to schedule a meeting with the study team to discuss any questions or comments about the study or progress.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Ronald
To: Morgan McCammon
Subject: [EXT] 2nd crossing
Date: Wednesday, February 1, 2023 3:05:18 PM
Attachments: MWSG submittal North Crossing PEL-reduced Final.pdf

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WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan, the Juneau Shooting Sports Foundation has voted to support the document submitted by the Mendenhall Wetlands Study Group. I have attached another copy for your records if needed. If our tabulating votes, the Foundation has 9 members.

Thanks

Ron Somerville

From: Matt Robus
To: PUB-JDNorthCrossing
Subject: [EXT] Comments on the North Crossing PEL Study
Date: Friday, February 3, 2023 3:18:28 PM

Some people who received this message don't often get email from [redacted]. Learn why this is important

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Comments re North Crossing PEL Study

First of all, I should state that I do not oppose the idea of a "second crossing," although I am not sure that one is necessary, compared to other needs in Juneau. Arguably, the planning and design of a "Douglas Island bench road," which would prepare the corridor along the east and north shores of the island for increased traffic and protect the local neighborhoods along North Douglas Highway from high speed through traffic, should *precede* planning for a crossing.

My comments about the PEL study are about both the process to date as well as the choices to be made:

Process

To give an idea of my involvement, I have participated in a North Crossing PEL listening session, public stakeholder meetings, an open house, and a special meeting between staff and the Mendenhall Wetland Study Group. At my first exposure I was dismayed that the Mendenhall Wetlands State Game Refuge (MWSGR) was not depicted on the maps defining the study area and have been disappointed ever since that those boundaries have not been added. For a process with "Environmental Linkages" embedded in its title this has seemed curious to say the least. By definition the MWSGR contains not only significantly valuable natural resources but also presents extra regulatory hurdles for any development; it was a mistake to encourage the public to nominate crossing routes without showing them a legislatively designated special area that would be affected, and which would in turn affect the authorization of a route. From the beginning I have repeatedly questioned the absence of the refuge boundaries on the PEL map handouts and have been politely told by staff that the MWSGR boundaries existed in one of the layers in the map book available at the meetings. Maybe so, but my point is that most people didn't leaf through the map book when making their route decisions, and if they used a map at all, it was the study area handouts, which were silent on the matter of a wildlife refuge. The airport was depicted (I assume) because it obviously affected route choices; the decision not to depict another legislatively designated special purpose area (the MWSGR) within the study area seems arbitrary, and likely led people to favor routes across the refuge in ignorance of its extent and its management paradigm. Did people drawing routes understand that state regulations require that off-refuge alternatives be preferred? Probably not.

If I understand the process correctly, the idea was to collect ideas for crossing routes based entirely on the purpose and need statements, with environmental and other considerations to be used to screen out problematic alternatives. The problem is that the array of route alternatives, gathered without adequate revelation of MWSGR's extent or purpose, will now be screened away from the public eye using environmental and other factors, leading to a reveal sometime later this spring/summer. Given that the MWSGR boundaries were not prominently included in the information which was a basis for forming proposed route alternatives, the planning team has forfeited a certain amount of credibility in the proceedings.

Route Choices

My route recommendations are based upon 30 years as a professional wildlife biologist, 8 years as ADF&G's Juneau Area Biologist, and 4.5 years as Alaska's chief wildlife manager, as well as 31 years as a Juneau resident. The Mendenhall Wetlands State Game Refuge and the surrounding Mendenhall Wetlands constitute an extraordinarily important area for the production and sustainment of a wide variety of fish, bird, and mammalian species and support a wide array of public recreational uses. The benefits of these habitat resources extend regionally well beyond the refuge boundaries. These values are important enough that the state regulations regarding the MWSGR require that off-refuge transportation corridors be sought in preference to routes transecting the refuge.

Accordingly, I oppose all route proposals that would cross the Mendenhall Wetlands State Game Refuge on the surface. The deleterious effects of such a crossing can be seen in other submittals to this request for comments, but include habitat alteration, disturbance, tidal and freshwater inputs, altered human use patterns, viewshed impacts, etc., not to mention the effects of increased traffic along North Douglas Highway.

Viable route alternatives in my view include Salmon Creek, Eagle Creek, and Downtown, which all offer alternative access to Douglas Island in the case of the existing bridge being blocked for some reason, and facilitate EMS access. I personally don't believe that affordable housing is a valid reason for a second crossing and suspect that much of the enthusiasm for a crossing is for access to developable land and for convenient access to Eaglecrest. Protection of the integrity of the MWSGR steers my choices for route alternatives to the area from Salmon Creek to the existing bridge. The Mendenhall Peninsula option, if constructed so as to avoid the area around the mouth of the Mendenhall River, an especially important area biologically, could also be a viable option.

Thank you for the opportunity to provide comments on this important issue.

Matthew H. Robus
[redacted]

Level 1 Screening Results Overview

	Criteria						no build	Mendenhall Peninsula	North Airport	West Sunny Point Area	Sunny Point Area	Vanderbilt	Twin Lakes	Salmon Creek	Eagle Creek	Downtown
Step 1																
Purpose and Need	Provide alternate access and transportation infrastructure resilience	The alternative provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience		yes		no	no	yes	yes	yes	yes	yes	yes	yes	no	no
	Improve transportation for non-motorized users	The alternative includes improvements for non-motorized users		yes		no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study		yes		no	no	yes	yes	yes	yes	yes	yes	yes	yes	no
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative		yes		no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.		yes		no	no	yes	yes	yes	yes	yes	yes	yes	yes	no
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure		yes		no	no	yes	yes	yes	yes	yes	yes	yes	no	no
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure		yes		no	no	yes	yes	yes	yes	yes	yes	yes	no	no
Step 2															**out**	**out**
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities		**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	medium	low	low	high	high	high	high	high	high	high		
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve		**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	medium	low	low	high	high	high	high	high	high	high		
	Avoid, minimize, and mitigate impacts to the environment		**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	high	medium	low	high	low	low	low	low	low	low	medium		
	Avoid, minimize, and mitigate impacts to residential areas		**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	high	medium	low	high	medium	medium	medium	medium	medium	medium	medium		
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island		**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	medium	low	high	low	medium	medium	medium	medium	high	high		
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Mitigation, Permitting	Types of areas affected	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Hydrologic connectivity impacted		Connectivity affected	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Important migratory bird habitat impacted		Type of habitat affected	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Wildlife, fish, essential fish or T&E habitats impacted	Consultation	Type of habitat affected	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Contaminated sites directly affected	Permitting, Clean-up	Type of contaminants	no		yes	no	no	no	no	no	no	no	no		
	Impervious surfaces added			no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Protected (conserved lands, refuge) lands directly affected	Mitigation, Permitting	Types of areas affected	no		yes	no	no	yes	yes	yes	yes	yes	no		
	Use of Section 4(f) / 6(f) protected lands	Mitigation, Permitting	Types of resources affected	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
Social	Within 100 ft of an EJ community, a school, or a community gathering space		Distance to EJ community, school, or a community gathering space	no		yes	no	no	no	no	no	no	no	no		
	A neighborhood is divided or otherwise disrupted		Neighborhood name	no		yes	no	yes	no	yes	yes	no	no	no		
	Consistent with plan policies and development code		List plan / policies	yes		no	yes	yes	yes	yes	yes	yes	yes	yes		
Housing	Residential uses directly affected	Loss of propoerty, relocation	ROW needed	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Within 100 ft of residential properties	Noise / air / viewshed impact	Distance to residential properties	no		yes	no	yes	yes	yes	yes	yes	yes	yes		
	Potential to improve access to developable land	Opens land for development	Provides access	yes		no	no	yes	yes	yes	yes	yes	yes	yes		
Economic	Commercial uses directly affected	Relocation, commercial use access	ROW needed	no		yes	no	yes	yes	no	no	no	yes	yes		
	Within 100 ft of commercial uses	Noise / air impact	Distance to commercial uses	no		yes	no	yes	yes	no	no	no	yes	yes		
	Potential to improve access to developable land	Opens land for development	Provides access	yes		no	no	yes	yes	yes	yes	yes	yes	yes		
Safety	Improve safety for all users		Design and location	yes		no	no	yes	yes	yes	yes	yes	yes	yes		
Construct-ability	A crossing can be built in this location based on construction knowledge and experience in planning and design		Professional judgment	yes		no	n/a	yes	no	yes	yes	yes	yes	yes		
Cost	Estimated construction cost		Professional judgment on expected construction cost	low	medium	high	n/a	high	high	high	high	medium	low	low		
	Estimated maintenance cost/effort		Professional judgment on expected maintenance cost/effort	low	medium	high	n/a	high	high	high	high	medium	low	low		
Public Support	Level of public support	Comments received	Comments in support of an alternate crossing	high	medium	low	high	high	high	high	high	high	medium	medium		

No Build Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	no	No change - same route/distance, no alternate crossing
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	no	No change - same route/distance, no alternate crossing
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	no	No change - same route/distance, no alternate crossing
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	no	No change - same route/distance, no alternate crossing
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	no	No change - same route/distance, no alternate crossing
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	no	No change - same route/distance, no alternate crossing
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	no	No change - same route/distance, no alternate crossing
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	low	No improvement - same route/distance, no alternate crossing
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	low	No likelihood to enhance and protect the public health and safety - no alternate crossing, no changes to existing infrastructure
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	high	No impacts - no alternate crossing, no construction
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	high	No impacts - no alternate crossing, no construction
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	High likelihood - no alternate crossing
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	no	No impacts - no alternate crossing, no construction
	Hydrologic connectivity impacted	Connectivity affected	no	No impacts - no alternate crossing, no construction
	Important migratory bird habitat impacted	Type of habitat impacted	no	No impacts - no alternate crossing, no construction
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	no	No impacts - no alternate crossing, no construction
	Contaminated sites directly affected	Type of contaminants	no	No impacts - no alternate crossing, no construction
	Impervious surfaces added	Types of surfaces constructed	no	No impacts - no alternate crossing, no construction
	Protected (conserved lands, refuge) lands directly affected	Types of areas affected	no	No impacts - no alternate crossing, no construction
	Use of Section 4(f)/6(f) protected lands	Types of lands used	no	No impacts - no alternate crossing, no construction
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	No impacts - same route, no alternate crossing, no construction
	A neighborhood is divided or otherwise disrupted	Neighborhood name	no	No impacts to a neighborhood - same route, no alternate crossing, no construction
	Consistent with plan policies and development code	Local plan / policies	yes	No change - same route, no alternate crossing
Housing	Residential uses directly affected	ROW needed	no	No impacts to residential uses - same route, no alternate crossing, no construction
	Within 100 ft of residential properties	Distance to residential properties	no	No alternate crossing, no construction
	Potential to improve access to developable land	Provides access	no	No change in access to developable land - same route, no alternate crossing, no construction
Economic	Commercial uses directly affected	ROW needed	no	No ROW needed - no alternate crossing, no construction
	Within 100 ft of commercial uses	Distance to commercial uses	no	No alternate crossing, no construction
	Potential to improve access to developable land	Provides access	no	No change in access to developable land - same route, no alternate crossing, no construction
Safety	Improve safety for all users	Design and location	no	No improvement - same route/distance, no alternate crossing
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	n/a	No construction
Cost	Estimated construction cost	Professional judgment on expected construction cost	n/a	No cost - no alternate crossing, no construction
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	n/a	No cost - no alternate crossing, no future maintenance
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received

Mendenhall Peninsula Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation related energy consumption.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Mendenhall Peninsula crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. While it could be located outside of the Mendenhall Wetlands State Game Refuge, it has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	low	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative has no discernable likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. Additionally, this alternative is located in the vicinity of a popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative is likely to affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report.
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative may potentially affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report.
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative may potentially impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report.
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative is likely to impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report.
	Contaminated sites directly affected	Type of contaminants	no	Based on available information, there are no known contaminated sites within the area of this alternative. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report.
	Impervious surfaces added	Surfaces constructed	yes	This alternative will add impervious surfaces (road surfaces, bridges, associated structures). The size of impervious surfaces and associated impacts will not be determined until a structure has been designed. Preliminary engineering will help to determine impervious surface areas.
	Protected (conserved lands, refuge) lands directly affected	Areas affected	no	Based on the location, this alternative is unlikely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative is likely to use Section 4(f)/6(f) protected lands. While it could be located outside of the Mendenhall Wetlands State Game Refuge, it has a potential to impact other Section 4(f) properties. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report.
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not likely to be within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report.
	A neighborhood is divided or otherwise disrupted	Neighborhood name	yes	Based on the location, this alternative has the potential to divide or otherwise disrupt the Fritz Cove neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report.
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative has the potential to directly affect residential uses by requiring additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Economic	Commercial uses directly affected	ROW needed	yes	This alternative has the potential to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	yes	Some ROW needed for this alternative could potentially be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement this might be a constructable alternative in this location, but it would not be reasonable based on the height and the length of the structure needed in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	high	The estimated construction cost for this alternative would be high based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	high	The estimated maintenance cost for this alternative would be high based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received.

North Airport Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation related energy consumption.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the North Airport crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has a significant likelihood to enhance and protect the public health and safety by reducing traffic in congested areas, adding a separated multi-use path and tying into existing active transportation and pedestrian infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but has the potential to minimize or mitigate impacts to residential areas. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	medium	Based on the location and on the design, this alternative could have a significant likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island, if it would be designed as a tunnel the whole way, or, if it would be designed to be partial tunnel and partial bridge, the alternative could be within a protected viewshed (CBJ Comprehensive Plan 2013) and have no discernible likelihood. Further analysis based on a design would be needed to determine potential impacts. Additionally, this alternative is located in the vicinity of a popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative would directly affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative could affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative would impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative would impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	There are no known contaminated sites within the area of this alternative. It is unlikely that this alternative would impact contaminated sites. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative would add impervious surfaces. The size of impervious surfaces and associated impacts can not be determined until a structure has been designed. Preliminary engineering will enable an estimate.
	Protected (conserved lands, refuge) lands directly affected	Areas affected	yes	Based on the location, this alternative would directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative would use Section 4(f)/6(f) protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	no	Based on the location, this alternative would not divide or otherwise disrupt a neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative would directly affect residential uses by needing additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Economic	Commercial uses directly affected	ROW needed	yes	This alternative would directly affect commercial uses by needing additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	yes	Some ROW likely required for this alternative could potentially be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Safety	Improve safety for all users	Design and location	yes	This alternative would improve safety for all users by providing separated multi-use path, tying into existing infrastructure, and decreasing traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	no	Based on engineering judgement this is not a constructable alternative in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	high	The estimated construction cost for this alternative would be high based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	high	The estimated maintenance cost for this alternative would be high based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received.

West Sunny Point Area Alternative				
Criteria			**Answer**	**Comment/Rationale/Justification**
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the West Sunny Point crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	medium	Based on the location, this alternative has the potential to have some likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. It is located in the vicinity of a popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative is likely to affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative may potentially affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative may potentially impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative is likely to impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	Based on available information, there are no known contaminated sites within the area of this alternative. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative will add impervious surfaces (road surfaces, bridges, associated structures). The size of impervious surfaces and associated impacts will not be determined until a structure has been designed. Preliminary engineering will help to determine impervious surface areas
	Protected (conserved lands, refuge) lands directly affected	Areas affected	yes	Based on the location, this alternative is likely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative is likely to use Section 4(f)/6(f) protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not likely to be within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	yes	Based on the location, this alternative has the potential to divide or otherwise disrupt the Sunny Point neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative has the potential to directly affect residential uses by requiring additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Economic	Commercial uses directly affected	ROW needed	no	This alternative is not likely to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	no	It is unlikely that the alternative would be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement this is a constructable alternative in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	high	The estimated construction cost for this alternative would be high based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	high	The estimated maintenance cost for this alternative would be high based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received.

Sunny Point Area Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Sunny Point Area crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	medium	Based on the location, this alternative has the potential to have some likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. It is located in the vicinity of a popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative is likely to affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative may potentially affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative may potentially impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative is likely to impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	Based on available information, there are no known contaminated sites within the area of this alternative. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative will add impervious surfaces (road surfaces, bridges, associated structures). The size of impervious surfaces and associated impacts will not be determined until a structure has been designed. Preliminary engineering will help to determine impervious surface areas
	Protected (conserved lands, refuge) lands directly affected	Areas affected	yes	Based on the location, this alternative is likely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative is likely to use Section 4(f)/6(f) protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not likely to be within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	yes	Based on the location, this alternative has the potential to divide or otherwise disrupt the Sunny Point neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative has the potential to directly affect residential uses by requiring additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Economic	Commercial uses directly affected	ROW needed	no	This alternative is not likely to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	no	It is unlikely that the alternative would be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement this is a constructable alternative in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	high	The estimated construction cost for this alternative would be high based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	high	The estimated maintenance cost for this alternative would be high based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received.

Vanderbilt Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Vanderbilt crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	medium	Based on the location, this alternative has the potential to have some likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. This alternative is located further away from popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative is likely to affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative may potentially affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative may potentially impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative is likely to impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	Based on available information, there are no known contaminated sites within the area of this alternative. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative will add impervious surfaces (road surfaces, bridges, associated structures). The size of impervious surfaces and associated impacts will not be determined until a structure has been designed. Preliminary engineering will help to determine impervious surface areas
	Protected (conserved lands, refuge) lands directly affected	Areas affected	yes	Based on the location, this alternative is likely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative is likely to use Section 4(f)/6(f) protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not likely to be within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	no	Based on the location, this alternative is not likely to divide or otherwise disrupt a neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative has the potential to directly affect residential uses by requiring additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Economic	Commercial uses directly affected	ROW needed	no	This alternative is not likely to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	no	It is unlikely that the alternative would be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement this is a constructable alternative in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	medium	The estimated construction cost for this alternative would be medium based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	medium	The estimated maintenance cost for this alternative would be medium based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	high	There is a high level of community support for this alternative based on the public comments received.

Twin Lakes Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Twin Lakes crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	low	Based on the location, this alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	Based on the location, this alternative has the potential to have some visual impacts but has a significant likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. This alternative would require a shorter structure and is located away from popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative is likely to affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative may potentially affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	Based on the location, this alternative may potentially impact important migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative is likely to impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	Based on available information, there are no known contaminated sites within the area of this alternative. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative will add impervious surfaces (road surfaces, bridges, associated structures). The size of impervious surfaces and associated impacts will not be determined until a structure has been designed. Preliminary engineering will help to determine impervious surface areas
	Protected (conserved lands, refuge) lands directly affected	Areas affected	yes	Based on the location, this alternative is likely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, this alternative is likely to use Section 4(f)/6(f) protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	no	Based on the location, this alternative would not divide or otherwise disrupt a neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative would directly affect residential uses by needing additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future. Compared to other alternatives, the shortened distance to developable land on West Douglas is less for travelers from the Valley.
Economic	Commercial uses directly affected	ROW needed	yes	This alternative has the potential to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	yes	Some ROW likely required for this alternative could potentially be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future. Compared to other alternatives, the shortened distance to developable land on West Douglas is less for travelers from the Valley.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement this is a constructable alternative in this location.
Cost	Estimated construction cost	Professional judgment on expected construction cost	low	The estimated construction cost for this alternative would be low based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	low	The estimated maintenance cost for this alternative would be low based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	medium	There is a medium level of community support for this alternative based on the public comments received.

Salmon Creek Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	yes	The alternative provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Salmon Creek crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	yes	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement	high	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	This alternative has the potential of a significant likelihood to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to the environment depending on design, location, or other measures. It would be located outside of the Mendenhall Wetlands State Game Refuge and does not impact conservation lands. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts	medium	Based on the location, this alternative would not avoid, but could potentially minimize or mitigate impacts to residential areas depending on design and location. Further analysis is needed to determine potential impacts. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood	high	Based on the location, this alternative has the potential to have some visual impacts but has a significant likelihood to maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. This alternative would require a shorter structure and is located away from popular hiking, hunting, fishing, and bird watching area.
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted	yes	Based on the location, this alternative would directly affect waterbody, wetland, riparian, and flood hazard areas. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Figure 12: Floodplains within the Study Area, page 70, and Figure 14: Wetlands in the Study Area, page 78, Environmental Setting Report
	Hydrologic connectivity impacted	Connectivity affected	yes	Based on the location, this alternative could affect hydrologic connectivity. For reference: Figure 11: Hydrology and Water Quality within the Study Area, page 66, Environmental Setting Report
	Important migratory bird habitat impacted	Type of habitat impacted	yes	This location is outside an area identified in mapping as being important migratory bird habitat. However, unless there is a distinct difference between what is inside the refuge boundary and what is immediately adjacent it is not possible to state that Salmon Creek is not migratory bird habitat. For reference: Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted	yes	Based on the location, this alternative would impact wildlife, fish, essential fish or T&E habitats. For reference: Figure 15: Essential Fish Habitat Within Study Area, page 85, Figure 16: Anadromous Fish Habitat Within Study Area, page 87, Figure 17: Habitat Area for Upland Species within Study Area, page 89, and Figure 18: Other Species Habitat Within Study Area, page 93, Environmental Setting Report
	Contaminated sites directly affected	Type of contaminants	no	There are no known contaminated sites within the area of this alternative. It is unlikely that this alternative would impact contaminated sites. For reference: Figure 22: Regulated Hazardous Sites and Non-regulated Waste Sites within Study Area, page 115, Environmental Setting Report
	Impervious surfaces added	Surfaces constructed	yes	This alternative would add impervious surfaces. The size of impervious surfaces and associated impacts can not be determined until a structure has been designed. Preliminary engineering will enable an estimate.
	Protected (conserved lands, refuge) lands directly affected	Areas affected	no	Based on the location, this alternative is unlikely to directly affect protected lands. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
	Use of Section 4(f)/6(f) protected lands	Types of lands used	yes	Based on the location, Section 4(f)/6(f) protected lands could potentially be affected. Further analysis is needed to determine potential impacts. For reference: Figure 9: Section 4(f) and 6(f) Properties within Study Area, page 53, Environmental Setting Report
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space	no	Based on the location, this alternative is not within 100ft of an EJ community, a school, or a community gathering space. For reference: Figure 4: Social Groups: Demographic Map, page 14, Environmental Setting Report
	A neighborhood is divided or otherwise disrupted	Neighborhood name	no	Based on the location, this alternative would not divide or otherwise disrupt a neighborhood. For reference: Figure 7: Land Ownership, page 53, Environmental Setting Report
	Consistent with plan policies and development code	Local plan / policies	yes	This alternative is consistent with the land use designations in the current CBJ Comprehensive Plan. For reference: Figure 5: Comprehensive Plan Designation within Study Area, page 24, Environmental Setting Report
Housing	Residential uses directly affected	ROW needed	yes	This alternative would directly affect residential uses by needing additional ROW within an area with private land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of residential properties	Distance to residential properties	yes	Some ROW likely required for this alternative could potentially be within 100ft of residential properties. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future. Compared to other alternatives, the shortened distance to developable land on West Douglas is lesser for travelers from the Valley.
Economic	Commercial uses directly affected	ROW needed	yes	This alternative has the potential to directly affect commercial uses by requiring additional ROW within an area with commercial land ownership. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Within 100 ft of commercial uses	Distance to commercial uses	yes	Some ROW likely required for this alternative could potentially be within 100ft of commercial uses. Exact locations and amount of ROW are not yet determined. For reference: Figure 7: Land Ownership, page 53, and Figure 6: Zoning Designation within Study Area, page 28, Environmental Setting Report
	Potential to improve access to developable land	Provides access	yes	Based on the location, this alternative has potential to improve access to developable land by shortening the distance between some populated areas and areas with the potential to be developed in the future. Compared to other alternatives, the shortened distance to developable land on West Douglas is less for travelers from the Valley.
Safety	Improve safety for all users	Design and location	yes	This alternative has the potential to improve safety for all users by providing separated multi-use path and tying into existing infrastructure. The alternative would decrease traffic pressure on the Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing potentially resulting in fewer conflicts.
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment	yes	Based on engineering judgement an alternative in this location is constructable, but would potentially be difficult because of design constraints if navigability would have to be maintained.
Cost	Estimated construction cost	Professional judgment on expected construction cost	low	The estimated construction cost for this alternative would be low based on the location and the length of the crossing.
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort	low	The estimated maintenance cost for this alternative would be low based on the location and the length of the crossing.
Public Support	Level of public support	Comments in support of an alternate crossing	medium	There is a medium level of community support for this alternative based on the public comments received.

Eagle Creek Alternative

Criteria			Answer	Comment/Rationale/Justification
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	no	The alternative would provide an alternate access, but would not likely improve transportation infrastructure resilience. Based on its location, a single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches, could cut off access to critical resources.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	yes	Overall travel time and therefore the associated transportation related energy consumption to travel between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	yes	When emergencies require response from an out of district station or multiple stations simultaneously, the Eagle Creek crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay, and Glacier stations by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	no	Based on the location, the alternative would provide alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge, but not during another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	no	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge, but not during another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				**alternative did not move into Step 2**
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement		
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood		
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts		
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts		
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood		
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted		
	Hydrologic connectivity impacted	Connectivity affected		
	Important migratory bird habitat impacted	Type of habitat impacted		
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted		
	Contaminated sites directly affected	Type of contaminants		
	Impervious surfaces added	Surfaces constructed		
	Protected (conserved lands, refuge) lands directly affected	Areas affected		
	Use of Section 4(f)/6(f) protected lands	Types of lands used		
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space		
	A neighborhood is divided or otherwise disrupted	Neighborhood name		
	Consistent with plan policies and development code	Local plan / policies		
Housing	Residential uses directly affected	ROW needed		
	Within 100 ft of residential properties	Distance to residential properties		
	Potential to improve access to developable land	Provides access		
Economic	Commercial uses directly affected	ROW needed		
	Within 100 ft of commercial uses	Distance to commercial uses		
	Potential to improve access to developable land	Provides access		
Safety	Improve safety for all users	Design and location		
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment		
Cost	Estimated construction cost	Professional judgment on expected construction cost		
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort		
Public Support	Level of public support	Comments in support of an alternate crossing		

Downtown Alternative				
Criteria			**Answer**	**Comment/Rationale/Justification**
Step 1				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Provides alternate access between Juneau and Douglas Island and improves the transportation infrastructure resilience	no	The alternative would provide an alternate access, but would not likely improve transportation infrastructure resilience. Based on its location, a single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches, could cut off access to critical resources.
	Improve transportation for non-motorized users	Includes improvements for non-motorized users	yes	The alternative improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation related energy consumption	Reduces travel times based on O/D Study	no	Based on the traffic study, this alternative would not reduce travel times and would not lead to reduced transportation related energy consumption, because all trips would experience the same travel time as now.
	Decrease traffic pressure on Douglas Island Bridge and its intersections	Improves LOS during AM and PM peaks at existing bridge and alternative	yes	The alternative has potential to decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing.
	Improve emergency response times	Reduces estimated travel time for CCFR stations traveling to Douglas Island for emergency response.	no	Emergency response times would not be improved because an additional crossing would not exist to shorten the travel distance for emergency responders on the Juneau side to access the Douglas side.
	Improve access to critical healthcare and emergency services	Provides access during bridge or another single route closure	no	Based on the location, the alternative would provide alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge, but not during another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
	Improve access to workplaces and critical resources	Provides access during bridge or another single route closure	no	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge, but not during another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides or avalanches.
Step 2				**alternative did not move into Step 2**
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities	**High**: significant improvement **Medium**: some improvement **Low**: no discernible improvement		
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood		
	Avoid, minimize, and mitigate impacts to the environment	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts		
	Avoid, minimize, and mitigate impacts to residential areas	**High**: potential to avoid impacts **Medium**: potential to minimize or mitigate impacts **Low**: not likely to avoid, minimize or mitigate impacts		
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island	**High**: significant likelihood **Medium**: some likelihood **Low**: no discernible likelihood		
Natural Environment	Waterbody, wetland, riparian, or flood hazard areas impacted	Types of areas impacted		
	Hydrologic connectivity impacted	Connectivity affected		
	Important migratory bird habitat impacted	Type of habitat impacted		
	Wildlife, fish, essential fish or T&E habitats impacted	Type of habitat impacted		
	Contaminated sites directly affected	Type of contaminants		
	Impervious surfaces added	Surfaces constructed		
	Protected (conserved lands, refuge) lands directly affected	Areas affected		
	Use of Section 4(f)/6(f) protected lands	Types of lands used		
Social	Within 100 ft of an EJ community, a school, or a community gathering space	Distance to EJ community, school, or a community gathering space		
	A neighborhood is divided or otherwise disrupted	Neighborhood name		
	Consistent with plan policies and development code	Local plan / policies		
Housing	Residential uses directly affected	ROW needed		
	Within 100 ft of residential properties	Distance to residential properties		
	Potential to improve access to developable land	Provides access		
Economic	Commercial uses directly affected	ROW needed		
	Within 100 ft of commercial uses	Distance to commercial uses		
	Potential to improve access to developable land	Provides access		
Safety	Improve safety for all users	Design and location		
Constructability	A crossing can be built in this location based on construction knowledge and experience in planning and design	Professional judgment		
Cost	Estimated construction cost	Professional judgment on expected construction cost		
	Estimated maintenance cost/effort	Professional judgment on expected maintenance cost/effort		
Public Support	Level of public support	Comments in support of an alternate crossing		

SEALT Comments on Level 1 Screening Results

Provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee 3/17/23 in response to the request for comments on the application of Level 1 screening detailed in the 3/2/23 Technical Memorandum on Level 1 Screening Results.

Level 1 Screening Process & Application of Screening Criteria

1) Table 2 (page 5) summarizes the results of screening each alternative for the Additional Goals. For the goal of maintaining the visual, cultural, and scenic identity of Juneau and Douglas Island, the West Sunny Point, East Sunny Point, and Vanderbilt alternatives are assigned a value of "medium." These values should be changed to "low" for the following reasons:
    a. The stretch of Gastineau Channel encompassing the Sunny Point and Vanderbilt Creek alternatives was designated in CBJ's 2008 Comprehensive Plan as a scenic corridor/viewshed (see enclosed figure). The community of Juneau highly values this scenic viewshed and that recognition justifies evaluating this additional goal as "low" for the Sunny Point alternatives and the Vanderbilt alternative.
    b. The community of Juneau further demonstrated its interest in the Refuge in the CBJ Lemon Creek Area Plan.
        i. The plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access; planning for this "multimodal trail" is currently underway.
        ii. This information from the Lemon Creek Area Plan further illustrates the importance of the undisturbed Refuge in the Sunny Point/Lemon Creek/Vanderbilt region for public access and viewsheds. Placing a second crossing in this vicinity would significantly damage the visual and scenic identity of the Lemon Creek neighborhood and the whole Juneau community, as well as undermining current plans to develop recreational resources in this area.
    c. These locations represent some of the widest points of the Refuge, resulting in a significant stretch of open estuarine wetlands, uninterrupted by human development. This open viewshed is particularly unique in Southeast Alaska, where so much of our landscape is dominated by steep mountains and towering trees – only 2% of land area is comprised of tidal estuaries (Ecological Atlas of Southeast Alaska, Audubon Alaska). This iconic view is seen by visitors flying into Juneau International Airport, each tourist traveling from downtown, and, most importantly, every resident who travels on Egan Drive for work, errands, or other daily activities. Placing a large crossing structure at one of these locations would dramatically decrease the visual, cultural, and scenic identity of our community.
    d. Locating a crossing structure at one of these locations would significantly disrupt recreational uses of the Refuge. The Refuge is a unique recreational destination in Juneau, due to its flat elevation profile and open landscape, offering opportunities

unavailable at most of Juneau's parks and trails. A crossing structure would restrict access to the Refuge by creating a barrier impassable by Refuge users, as well as degrading users' ability to enjoy an undisturbed natural environment, significantly impacting the cultural identity of Juneau as a community with easy access to a diversity of outdoor recreation opportunities.

2) Table 3 (page 6) states that all of the alternatives are "Consistent with plans, policies, and development code." Review of this criterion should be updated to reflect that none of the alternatives within the Refuge are consistent with several key planning documents and should be marked "N." The alternatives within the Refuge are inconsistent with the following planning documents:
    a. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
    b. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the as high-functioning estuarine wetland mitigation sites around Sunny Point.
    c. **2013 CBJ Comprehensive Plan**:
        i. The alternatives located within the Refuge's boundaries are also inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
        ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damaging to the visual, cultural, and scenic identity of the community.
    d. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
3) Table 3 (page 7) notes that all of the alternatives received "high" levels of public support, except for the Twin Lakes and Salmon Creek alternatives. Because the figures illustrating levels of public support for the different alternatives presented by the Study Team are not reflective of the email comment log that was shared with the Technical Advisory Committee, it is not possible for

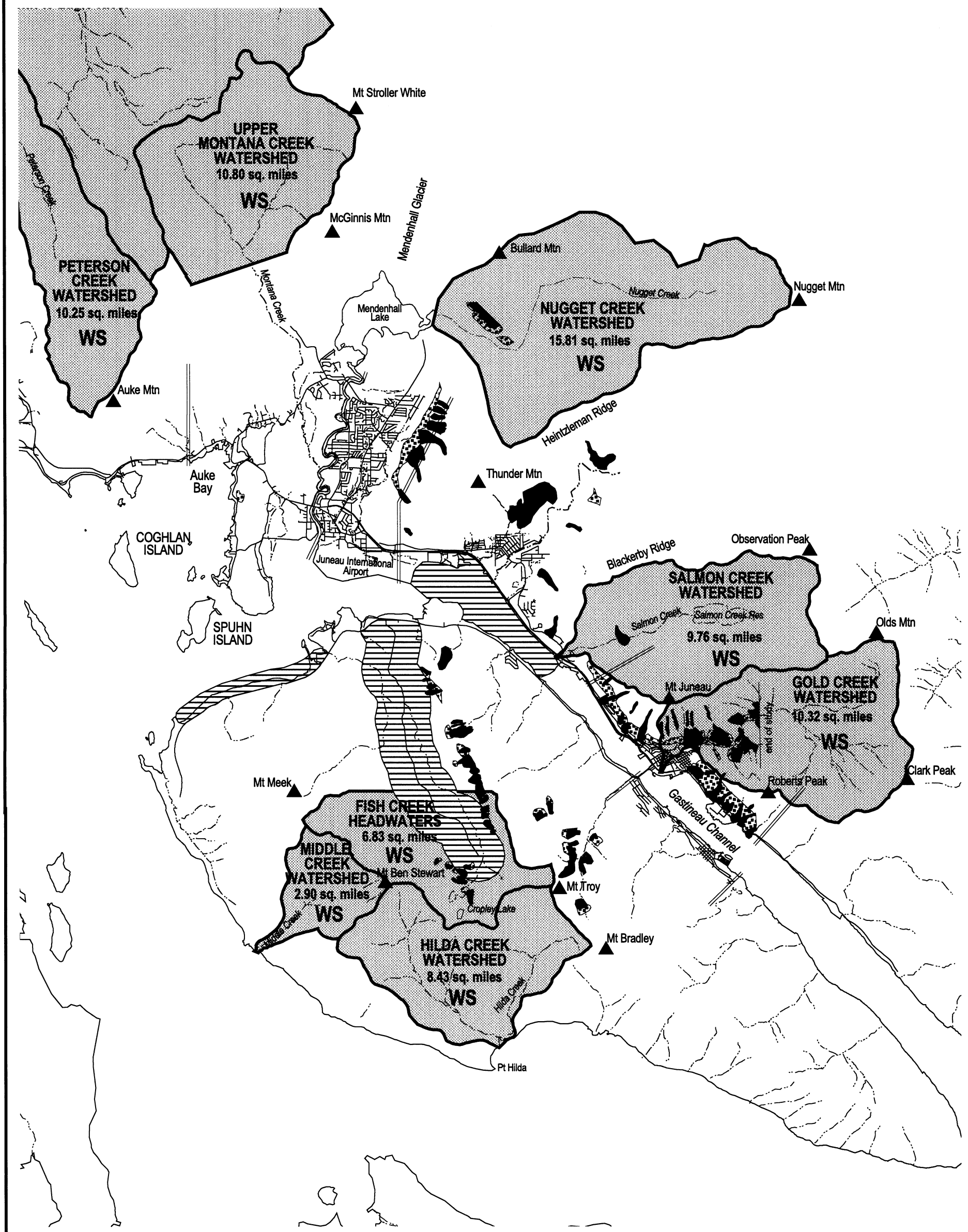
the Advisory Committees to determine whether this is an accurate assessment without being provided the results of the survey. When will the full survey results be shared with the Technical Advisory Committee?

4) The narratives for each alternative screened provides statements about each alternative's impact on travel times, presumably based on the origin-destination study. This study must be made publicly available so that stakeholders and the public can understand the analysis supporting these statements.
5) Please review the Level 1 Alternative Screening Results narratives to ensure consistency across the discussions of each alternative. For example:
    a. The discussion of the Mendenhall Peninsula alternative states that this alternative would result in "adverse visual impacts associated with the construction of a road at the top or [sic], or part way up a ridge" but the discussion of none of the other alternatives discusses the adverse visual impacts of a crossing structure across the Mendenhall State Game Refuge. It is unequal to provide a concrete statement about the adverse impacts of one location (Mendenhall Peninsula) and defer to "further analysis" for the other locations (e.g., page 13, page 15, etc.).
    b. The advantages/disadvantages narratives for the West and East Sunny Point alternatives should be reviewed for consistency, given the similarities between the two alternatives.
    c. The discussion of the Twin Lakes alternative identifies the potential intersection with Egan Drive as a disadvantage of this alternative. All other locations requiring "new" intersections should either have this considered in their analysis (e.g., West and East Sunny Point), or this disadvantage for the Twin Lakes alternative should be removed.
6) In all reports, technical memoranda, and other materials, please note that the Southeast Alaska Land Trust's properties on the Mendenhall Peninsula, around Sunny Point, and on Hendrickson Point are wetland mitigation sites under Section 404 of the Clean Water Act, in addition to being conservation properties (e.g., pages 12 and 15). It is important for all stakeholders and decision-makers to understand that impacts to these sites would result in significant additional regulatory complexity, time, and cost.
    a. In addition, these added regulatory complexities and increased costs should be noted when relevant. For example, on page 15 impacting SEALT conservation property is noted as a disadvantage of the East Sunny Point alternative and this should be expanded to state: "An alignment that meets design standards for horizontal curves will likely impact Southeast Alaska Land Trust conservation properties and wetland mitigation sites, resulting in increased costs and permitting complexity."
7) Based on the appendix tables, it appears that the Level 1 screening for impacts to the hydrologic connectivity at each alternative relied on Figure 11 in the Environmental Setting Report. This figure seems to focus on streams and freshwater inputs. Screening for hydrologic connectivity should include consideration of the tidal flows through the channel, as these saltwater inputs sustain the estuarine wetlands. Are you able to re-screen each alternative in Level 1 screening with this in mind? If not, how will you be incorporating consideration of saltwater inputs into Level 2 screening?
8) At the joint advisory committee meeting on Monday March 6, it seemed that each alternative had additional considerations that weren't presented in the Technical Memo. For example, the Study Team stated that there was some concern about the West Sunny Point alternative's

impacts to the airport, which could be a barrier to construction at that location. How will those additional considerations be documented so that there is public validation for the findings of this study?

Preparing for Level 2 Screening

1) In reports, technical memoranda, and other materials, please provide a definition of Section 4 (f) and other resources with important legal designations.
2) How are you going to consider indirect affects to the natural environment? For example, the degree of impact is different in different locations. A structure with the exact same size of footprint at Sunny Point and Salmon Creek would score exactly the same in your Level 2 screening criteria (as written), but would in reality have dramatically different impacts on the natural environment, Refuge, and habitat.
3) In Level 2 screening, how will you include impacts to Refuge access points, which will affect hunting, fishing, subsistence, and recreational activities for users in the project area?
4) In Level 2 screening, how will you be taking into consideration the costs and challenges of replacement for impacts to our mitigation sites when evaluating the West and East Sunny Point alternatives? It is important that stakeholders and decision makers are made aware of the regulatory complexities, legal challenges, and significant costs associated with these alternatives.
    a. The SEALT mitigation sites provide carefully matched in-kind compensatory mitigation for impacts resulting from the Juneau airport's expansion, as outlined in that project's USACE permit. If the regulators were to approve a scheme to replace these mitigation sites, replacement mitigation sites that provide in-kind mitigation for the airport project would need to be identified and approved by both SEALT and the regulators.
    b. There are few, if any, appropriate parcels within the Mendenhall Wetlands complex that could provide similar wetland function to these special, unique, and rare aquatic sites. For this reason, offsetting the impacts to existing mitigation sites would be a major project to ensure that the permit for the Juneau airport's expansion remains compliant. The functional impacts resulting from a second bridge between Juneau and Douglas Island would then have to be permitted and mitigated separately. We are challenged to see how the costs would be calculated adequately, let alone the functional analysis and planning necessary for "double mitigation".
    c. In order for decision-makers at the municipal and state levels to make an informed choice about the alternatives, their requirements, and their expense, how are you planning to account for the time, money, and work products required for impacting SEALT's mitigation sites?
5) We recommend that the PEL Study Team familiarize themselves with the USACE permitting process and compensatory mitigation under Section 404 of the Clean Water Act in order to fully capture the costs associated with providing mitigation for a project of this scale. It is likely that compensatory mitigation will be a not-insignificant cost for a project of this magnitude and this should be reflected in the analysis of whether each alternative is feasible.


Mt Stroller White
UPPER MONTANA CREEK WATERSHED
10.80 sq. miles
WS
Peterson Creek
McGinnis Mtn
Mendenhall Glacier
PETERSON CREEK WATERSHED
10.25 sq. miles
WS
Montana Creek
Mendenhall Lake
Bullard Mtn
Nugget Creek
NUGGET CREEK WATERSHED
15.81 sq. miles
WS
Nugget Mtn
Auke Mtn
Heintzleman Ridge
Thunder Mtn
Auke Bay
COGHLAN ISLAND
Juneau International Airport
Blackerby Ridge
Observation Peak
SALMON CREEK WATERSHED
Salmon Creek
Salmon Creek Res
9.76 sq. miles
WS
Olds Mtn
SPUHN ISLAND
Mt Juneau
GOLD CREEK WATERSHED
10.32 sq. miles
WS
end of runway
Clark Peak
Mt Meek
Roberts Peak
FISH CREEK HEADWATERS
6.83 sq. miles
WS
Gastineau Channel
MIDDLE CREEK WATERSHED
2.90 sq. miles
WS
Mt Ben Stewart
Mt Troy
Cropley Lake
Middle Creek
Mt Bradley
HILDA CREEK WATERSHED
8.43/sq. miles
WS
Hilda Creek
Pt Hilda
Watersheds
Scenic Corridor/Viewshed
Landslide/Avalanche Hazards
High Landslide/Avalanche Hazard
Moderate Landslide/Avalanche Hazard
Subarea Boundary
10000 0 10000 Feet
City & Borough of Juneau
COMPREHENSIVE PLAN
City & Borough of Juneau
Alaska's Capital City
N
Adopted October 20th, 2008
Ordinance No. 2008-30
NOTE: Potential geophysical hazards, wetlands, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.
Prepared by: Community Development Department

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
LEVEL I SCREENING RESULTS

MARCH 20, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the Level I Screening Results presented in a technical memorandum dated March 2, 2023, and also participated in the Technical and Stakeholder Advisory Committee meeting on March 6, 2023, and has the following comments on the screening results and issues that the PEL study team will be considering at Level II Screening.

The PEL study team has recommended that only five of the preliminary alternatives advance for further detailed development – West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek. Consistent with our prior comments (and also with comments we made during the last round of second crossing review, in 2005-07), NDNA does not take a position on which of these alternatives is preferable or that best addresses our concerns about impacts to the North Douglas area and our neighborhood. But we want to make several points regarding how these alternatives should be evaluated.

1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.

2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.

3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.

4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.

5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.

Thank you for considering these comments.

From: David Hanna
To: Talli Vittetoe; Morgan McCammon; Steven Noble
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Sunday, March 19, 2023 7:09:12 PM

Some people who received this message don't often get email from [redacted]. Learn why this is important

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Greetings,
Below are my comments on the ranking of the alternatives and the process used:

To begin with, I feel one of the most important parts of the process has a serious flaw and this is the projected traffic study. To only consider current traffic needs and patterns for a project that is meant to allow growth for the community is unacceptable. The North and West side of Douglas Island are the logical candidates for residential, commercial, and industrial expansion. Indeed the fact that all of Juneaus' freight and most of its fuel has to be trucked through an avalanche zone and a landslide zone through the heart of town on its busiest street gives many of us pause and is a strong incentive for moving these facilities to West Douglas. With this in mind, it is premature to remove both the north of the airport alternatives.

The actual ratings of the alternatives reveal some additional shortcomings. I will address some of these in order.

The Salmon Creek alternative does mention that there are concerns with right of way acquisitions. It could go on to explain that this area is currently the only alternative location to bring large freight barges into and handle the freight loads. Two of the major freight distributors are located here which is also concerning. Disrupting this could have serious consequences.

The Vanderbilt location would have a direct impact on the following streams; West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek. It would also require substantial fills in the intertidal areas.

In contrast, The Sunny Point location is strategically located at the existing interchange needing little fill in the wetlands and would not impact any of the above mentioned streams. Three of these streams are already listed as impaired waterbodies. On the Douglas Island side, the city already owns enough property that no residences need be impacted. They also own property directly across the Douglas Highway which would allow access to a future bench road.

The north side of the airport scored low for some puzzling reasons. A low scoring for proximity to commercial districts flies in the face of reason. Any realtor will tell you that proximity to a major thoroughfare raises the value of the property. It does not diminish it. This alternative would actually open up more industrial zoned property. Future development on West Douglas will demand quick access to the Mendenhall Valley population center. Furthermore, it is debatable as to the need for a tunnel in this location.

The Mendenhall Peninsula route is another that would be ideal once North and West Douglas

are developed. The pitfalls are stated that it would divide neighborhoods, be too close to residential areas and necessitate a 140' tall bridge due to the grade change. The fact is the central route would appear to avoid all existing residential as it opened up additional CBJ land for much needed housing. A perusal of google earth shows that there is adequate space to maintain a desired 6% grade down to a 40' elevation. This is a dramatic difference. In addition, I feel that the fact that this option would likely have the least impact on the Mendenhall Refuge needs more recognition.

For these and other reasons I request that the ranking be re-visited. In addition, I feel that none of the alternatives can be seriously considered until the issue of not considering future development is cured.

Respectfully,
Dave Hanna
Eaglecrest Board and Access Alaska Board

On Fri, Mar 17, 2023 at 4:15 PM Talli Vittetoe <[redacted]> wrote:

> Good afternoon Advisory Committee Members,
>
> Thank you for continued participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We would like to remind you that comments on the attached draft Level 1 Screening Memo are due by **March 20, 2023.**
>
> Kind regards,
>
> **Talli Vittetoe**
> Public Involvement Assistant
>
> DOWL
> [redacted]
> *dowl.com*
>
> ---
>
> **From:** Morgan McCammon <[redacted]
> **Sent:** Tuesday, March 7, 2023 11:51 AM
> **To:** Daugherty, Leslie K (DOT) [redacted]
> Cody Hargreaves
> [redacted];

[redacted] 'Daniel King' [redacted] ; Dave Hanna <[redacted]>; Alaska Concrete Casting <a[redacted]>
Cc: Heidemann, Marie E (DOT) <m[redacted]>; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted]ov>; Mounce, Christina L A (DOT) [redacted]ov>; Katie Koester [redacted]; irene.gallion [redacted] Alec Venechuk <A[redacted]>; Steven Noble [redacted] Renee Whitesell [redacted]>; Nina Keller Horne [redacted]om>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]>; Sean Holland <[redacted]>; Michael Horntvedt [redacted]trix.com>; Mike Hall <[redacted]>
Subject: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up

Good morning Advisory Committee Members,

Thank you for your participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We appreciate the feedback provided at the meeting.

For those who were unable to attend, please see the attached presentation from yesterday's meeting. Also attached is the draft Level 1 Screening Memo. **Please provide comments on this draft memo by March 20, 2023.**

As many of you are aware, the City and Borough of Juneau (CBJ) Assembly Public Works and Facilities Committee held a public work session on March 2, 2023, requesting public testimony on the study and any future project that may result. The Assembly Committee has said they will provide additional opportunities for public testimony and will accept comments electronically. The CBJ

Assembly email address, work session packet, and Zoom meeting recording are available in the links below:

- CBJ Assembly email address: BoroughAssembly@juneau.gov *Please share your comments with the study team as well: jdnorthcrossing@dowl.com

- SOA DOT&PF Presentation - 3/2/2023 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf

- YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Reconsider Level 1 Step 1: Twin Lakes, Salmon Creek, Eagle Creek and Downtown do not meet proposed purpose and need. Twin Lakes and Salmon Creek should also be removed from Additional Goals Screening.

Sunny Point provides the most leverage in improved response times.

Emergency response times include medic response. Assuming getting medics to the victims improves outcomes, "Improved Emergency Response Times" and "Access to critical health care and emergency services" have the same constraint – how fast can medics get there?

When looking at the distance between stations, a point half way between the two is the point at which either one has an arrival advantage.

Manned stations that could come into play with the crossings include:

Station 1, Downtown: 820 Glacier Highway

Station 3: Glacier: 1700 Crest Avenue

Station 4: Auke Bay: 11900 Glacier Highway

Considering the half way point between stations, the crossings that improve response times are considered below. Also, I've asked GIS to tell me how many acres of CBJ land are to the northwest of the midpoint, then assumed 10% of that land would be developed with single-family homes on 14,000 square foot lots (conservative). The table below shows how many existing homes would see improved service, and provides an estimate on developed homes that would be serviced.

Alternative	Improved response existing homes	Acres of CBJ Land	# of dwellings 10% developed
Vanderbuilt	277	4556	1418
Sunny Point	291	4624	1439
North Airport	196	4061	1264
Mendenhall Peninsula	96	3202	996

Details are provided below.

Eagle Creek, Salmon Creek, and Twin Lakes crossings eliminated, with no improvement to response times.

Response times don't improve until half way between the existing stations. Downtown is the more efficient station until you get to that point.

Downtown to Glacier is 7.5 miles, 11 minutes

Middle of Twin Lakes is about half way.

Options east of this do not provide improved response.

Salmon Creek and Eagle Creek do not provide improved response. Twin Lakes provides redundant response.

Vanderbuilt improves response times for 277 existing homes.

Assuming a straight Vanderbuilt crossing landing at approximately 7850 North Douglas Highway, the distance between the Downtown Station and Glacier Station is approximately 8.7 miles (white line).

The half way point lands at 7480 Glacier Highway (star). Northeast of this area the Glacier Fire Station would provide a faster response time.

There are 277 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,556 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,417 additional homes.



Sunny Point improves response times for 291 existing homes.

Using the western access for the Sunny Point crossing, the distance between Glacier Station and Downtown is approximately 8.2 miles (white line).

The half way point lands at 7160 North Douglas Highway, approximately 1,500 feet east of the midpoint from Vanderbuilt.

There are 291 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4624 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,439 additional homes.



North Airport improves response time for 196 existing homes.

There is approximately 7.1 miles between Glacier Station and Auke Bay Station. Industrial Boulevard is approximately 0.2 miles from Glacier Station, so Glacier Station would provide the most efficient response time.

The mid point between Glacier Station and the Downtown Station is approximately 8687 North Douglas Highway.

There are 196 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,061 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,264 additional homes.



Mendenhall Peninsula improves response time for 96 homes.

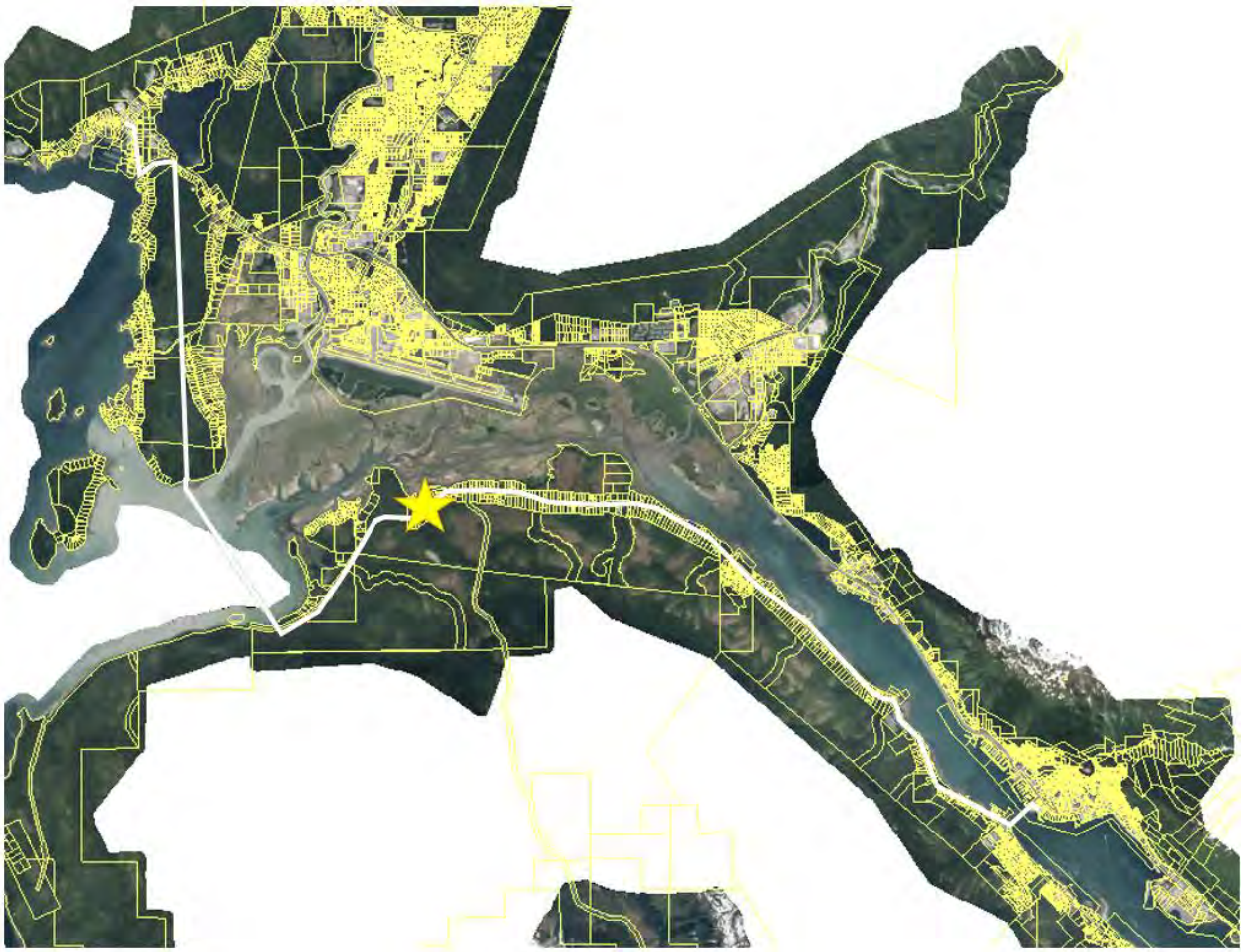
Auke Bay station is 0.75 miles the MenPen alternative intersection with Glacier Highway.

There is approximately 13.8 miles between the Auke Bay Station and the Downtown Station using the proposed MenPen alignment.

The midpoint is 10001 North Douglas Highway.

There are 96 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 3,202 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 996 additional homes. Unlike other alternatives, this option may open up residential land along the project alignment.



From: Christine Woll
To: Morgan McCammon
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Monday, March 20, 2023 9:18:52 AM

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Hi Morgan -

Thank you for this opportunity to comment. I have a few related comments for consideration. I am speaking as an individual and do not represent the Assembly as a body in my comments.

The stated reason for many who support a second crossing is ability to develop on the west side of Douglas Island. As a result, there may be many people and groups who are disappointed to not see the two northernmost options move forward, given that they provide the shortest route from this area to the Mendenhall Valley and hospital. If you move forward with eliminating these choices, I would suggest you better document the reasons for removal (ie., the infeasibility of these options). For example, providing a cost estimate of these options in the memo would provide a more compelling argument that these options are worth eliminating at this phase. Otherwise, you will have many in the community continue to hold up these alternatives as the best alternatives, which will severely hamper the ability of the community to bring this project to fruition.

If you are not able to provide a bit more detail on the cost/feasibility for those two alternatives, I'd suggest moving those alternatives forward to the next stage so that you CAN provide that detail. Although I agree that these two alternatives are likely not the best routes given those feasibility concerns, I do worry that if there is still questions in people's minds about that then the project will hit political roadblocks early.

On a related note, my understanding is that a second crossing can only be built across the Refuge if it can be shown that other alternatives are not feasible. I'm not legal expert, but that suggests to me that providing more detail on the feasibility of the Mendenhall Peninsula option will be necessary if people want to move forward with any of the options suggested that run through the Refuge. I'm not advocating for those alternatives that run through the Refuge nor the Mendenhall Peninsula option, but instead just pointing out that more feasibility information may be helpful for the northern routes to answer important questions early.

Thanks,
Christine Woll
City and Borough of Juneau
District 2 Assembly member

> On Mar 7, 2023, at 11:51 AM, Morgan McCammon [redacted] > wrote:
>
> <JDNC_DRAFT Level 1 Screening_Combined Memo.pdf>

From: Churchwell, Roy T (DFG)
To: Morgan McCammon; Daugherty, Leslie K (DOT); Alimi, Adeyemi S (DEC); Kanouse, Kate M (DFG); Meitl, Sarah J (DNR); [redacted]; Patty Wahto (DOT-sponsored); david.gann; linda.shaw; [redacted] Rypkema, James (DEC); [redacted]; Cody Hargreaves; [redacted]; Teske, Daniel J (DFG); Purves, Nathan A (DOT); Bjornlie, Nichole L; Markegard, Sarah J; [redacted] Kroes, Preston M (DNR); Hillgartner, Megan G (DNR); Auger, Mason J (DNR); [redacted] Despain, Timothy J (DPS); [redacted]; Holst, Brian (CED sponsored); [redacted]; robert venables; [redacted] Schlingheyde, Catherine (LEG); [redacted] Dave Hanna; Alaska Concrete Casting
Cc: Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Mounce, Christina L A (DOT); Katie Koester; irene.gallion; Alec Venechuk; Steven Noble; Renee Whitesell; Nina Keller Horne; Jovie Garcia; Theresa Dutchuk; Sean Holland; Michael Horntvedt; Mike Hall
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Monday, March 20, 2023 9:04:37 AM

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Hello Morgan and PEL Study Team,

I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document.

Roy

From: Morgan McCammon <[redacted]>
Sent: Tuesday, March 7, 2023 11:51 AM
To: Daugherty, Leslie K (DOT) [redacted]; Alimi, Adeyemi S (DEC) <[redacted]; Kanouse, Kate M (DFG) <[redacted]>; Churchwell, Roy T (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]>; [redacted]; Patty Wahto (DOT-sponsored) [redacted];

david.gann [redacted]>; linda.shaw [redacted]>; [redacted] Rypkema, James (DEC) <[redacted]; [redacted]; Cody Hargreaves [redacted]; Teske, Daniel J (DFG) <[redacted]; Purves, Nathan A (DOT) <[redacted]>; Bjornlie, Nichole L [redacted]>; Markegard, Sarah I [redacted]>; [redacted]; Kroes, Preston M (DNR) [redacted]>; Hillgartner, Megan G (DNR) <[redacted]v>; Auger, Mason J (DNR) <[redacted]>; [redacted] Despain, Timothy J (DPS) [redacted] Holst, Brian (CED sponsored) <[redacted]; robert venables <[redacted]>; [redacted]; Schlingheyde, Catherine (LEG) [redacted]; King, Daniel (CED sponsored) [redacted] g; Dave Hanna [redacted]; Alaska Concrete Casting <[redacted]

Cc: Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted]>; Mounce, Christina L A (DOT) <[redacted]>; Katie Koester [redacted]; irene.gallion [redacted]; Alec Venechuk <[redacted]>; snoble [redacted]; Renee Whitesell [redacted]; Nina Keller Horne [redacted]; Garcia, Jovie A (DOT sponsored) [redacted]>; Dutchuk, Theresa (DOT sponsored) [redacted]; Holland, Sean (DOT sponsored) [redacted]>; Michael Horntvedt <[redacted]>; Mike Hall [redacted]>

Subject: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Advisory Committee Members,

Thank you for your participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We appreciate the feedback provided at the meeting.

For those who were unable to attend, please see the attached presentation from yesterday's meeting.

Also attached is the draft Level 1 Screening Memo. **Please provide comments on this draft memo by March 20, 2023.**

As many of you are aware, the City and Borough of Juneau (CBJ) Assembly Public Works and Facilities Committee held a public work session on March 2, 2023, requesting public testimony on the study and any future project that may result. The Assembly Committee has said they will provide additional opportunities for public testimony and will accept comments electronically. The CBJ Assembly email address, work session packet, and Zoom meeting recording are available in the links below:

- CBJ Assembly email address: BoroughAssembly@juneau.gov *Please share your comments with the study team as well: jdnorthcrossing@dowl.com
- SOA DOT&PF Presentation - 3/2/2023 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf
- YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3188

WATER DIVISION

March 27, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has been participating in Technical Advisory Committee (TAC) meetings regarding the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study and has reviewed documents available on the project website.[1] EPA provided preliminary comments relative to our authorities under the Clean Water Act (January 13, 2023), and subsequently attended a virtual meeting on March 6, 2023, referenced as "Meeting No. 3." In response to the March 6th meeting, the TAC was asked to provide feedback on the Draft Level 1 Screening Results Technical Memorandum [2](TM). In an effort to continue to participate in early planning and provide regulatory background, EPA is providing additional preliminary comments related to the restrictions on discharges of dredged or fill material under the Clean Water Act 404(b)(1) Guidelines (Guidelines).[3]

PURPOSE and NEED/ Level 1 Alternative Screening

The stated project purpose and need statement (Updated November 2022) of the JDNC PEL indicates the purpose of the study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The Project's stated purpose and need statement is not specific to identified traffic concerns. In addition, the Juneau-Douglas Island population growth projections that would contribute to increased traffic have not been realized. At present, it is not clear that the need for the Project has been well substantiated. EPA recommends that the purpose and need more specifically incorporate the problem that would be addressed/solved by completing the project.

PRACTICABLE ALTERNATIVES/IDENTIFYING THE LEDPA

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines identify several restrictions on discharges. The first of these restrictions specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."[4] An

[1] https://www.jdnorthcrossing.com/.
[2] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[3] 40 CFR § 230.10.
[4] 40 CFR § 230.10(a).

alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[5] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[6]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Identification of the LEDPA is achieved by performing an alternatives analysis (AA) that evaluates the direct, secondary/indirect, and cumulative impacts to waters of the United States (WOTUS) resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.[7] EPA recommends the Project incorporate a formal LEDPA AA into the Project process to facilitate permitting decision making.

RANKING/SALMON CREEK ALTERNATIVE

Based on the Appendix; Level 1 Screening Results Overview[8] (page 28) under Step 2 *Additional Goals, Avoid, minimize, and mitigate impacts* to the environment, there are three categories: "high", "medium" and "low". A ranking of "high" means there is a high potential for the alternative to avoid impacts. While it is difficult to directly compare the aquatic resource impacts without knowing the designs of each alternative, the project ranking of "medium" was assigned (pages 29 and 37) to the Salmon Creek alternative. The other six alternatives are ranked as having "low" potential to avoid, minimize and mitigate impacts; with the no-build alternative ranking "high". EPA encourages the Project to consider and fully evaluate the Salmon Creek crossing as being the potential LEDPA alternative, while also meeting the project's stated purpose and need. While the TM states that there are challenges tying in with the Egan Drive/Channel Drive Intersection, there is also opportunity to upgrade this Juneau mainland intersection to improve current conditions. As noted in the TM and the North Crossing PEL Study Environmental Setting (ES) document,[9] the Salmon Creek Alternative is outside of the Mendenhall Wetlands State Game Refuge, would require the shortest crossing span, impact the least amount of wetlands (ES document, page 80, Figure 14, Wetlands in the Study Area), and least amount of documented Anadromous waters (ES document, Page 87, Figure 16; Anadromous fish habitat within the study area). Based upon information provided thus far, it also appears this alternative may require the least amount of intertidal dredge and fill impacts.

POTENTIAL DREDGING

Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems concerned.

EPA has been working with the Corps Alaska District Civil Works and Regulatory Programs since early 2020 to develop an Alaska-specific Dredged Material Evaluation Framework (AK DMEF) to provide

[5] 40 CFR § 230.10(a)(2).
[6] 40 C.F.R. § 230. 10(a)(3).
[7] 40 C.F.R. § 230.10(a)(2).
[8] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[9] JD North Crossing Environmental Setting, December 2022.

regional specificity for implementing federal sediment evaluation and testing regulations.[10] All regional implementation manuals are based on the process and procedures outlined in the Inland Testing Manual, a national guidance document authored by EPA and the Corps.[11] The Alaska District and EPA agreed to use the Seattle District's Dredged Material Evaluation and Disposal Procedures User Manual (User Manual)[12] as the template for the AK DMEF for evaluating the suitability of dredged material for in-water disposal under the Guidelines.[13] EPA recommends using the User Manual as regionally specific interim guidance for evaluating the suitability of dredged material from this project for in-water disposal.[14]

The draft AK DMEF, User Manual, and Inland Testing Manual include a tiered approach to sediment characterization for dredging projects. More specifically, these guidance documents outline four tiers of evaluation: 1. Site Evaluation and History, 2. Chemical Testing, 3. Biological Testing, and 4. Special Studies. Every dredging project is subject to a Tier 1 evaluation to determine if enough information exists to make a decision on whether dredged sediments will be suitable for open-water disposal. The presence of an adequate baseline is part of this determination. The Tier 1 evaluation may be the only tier required for a suitability determination, or it may inform evaluation by other tiers. The tiered analysis, provides the information needed to make a factual determination as required by the Guidelines.[15]The need for and extent of the Tier 1 evaluation should be incorporated into the Project, depending on the alternative selected.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at [redacted] or by email at [redacted]

Sincerely,

Betsy McCracken
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[10] 40 C.F.R. § 230 Subpart G.
[11] Evaluation of Dredged Material Proposed for Discharge in Waters of the US- Inland Testing Manual, Office of Water, EPA and Operations, Construction, and Readiness Division, Army Corps, February 1998, 176 pages. Available at: https://www.epa.gov/sites/default/files/2015-08/documents/inland_testing_manual_0.pdf.
[12]Dredged Material Evaluation and Disposal Procedures User Manual, Dredged Material Management Office, Seattle District, July 2021, 167 pages. Available at:https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/5397.
[13] 40 C.F.R. § 230.60.
[14] Per 40 C.F.R. § 230.61(a), which allows for interim guidance on sediment testing procedures under the Guidelines.
[15] 40 C.F.R. § 230.11.

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20 March 2023

DOWL
9085 Glacier Highway, Suite 102
Juneau, AK 99801

PEL Study Team:

Please find comments below regarding recent decisions and details related to the PEL Study transitioning to Phase 2 of the Juneau Douglas North Crossing ("second crossing"). Most of the comments were shared with DOWL during a meeting at their Juneau office on January 30, 2023. I summarize those comments, and have added new relevant information in this letter for the purpose of documentation.

1. General Positions
   - JAS is not offering an opinion on where or if a bridge should be built; rather, we seek to underscore the risks of significant disturbance within vital bird areas with a goal of preventing any construction in the Mendenhall Wetlands Complex.
   - JAS supports the inclusion of alternatives that do not enter tidal wetlands or nearby critical wildlife habitat.

2. Key Points
   - The Mendenhall Wetlands Important Bird Area provides vital stopover habitats that are limited within Southeast Alaska, most notably saltmarsh/grasslands and expansive glacial-fed tidal flats.
   - Fragmentation of wetlands (regardless of mitigation) diminishes habitat quality and reduces abundance and diversity of birds that inhabit or seasonally use habitats.

3. Threats/Risks
   - Construction degrades feeding and resting areas, especially for migratory shorebirds.
   - Air and habitat pollution from vehicle traffic (hydrocarbons, litter).
   - Light and noise pollution and disturbance.
   - Collisions (vehicles, bridge structural elements).

Thank you for the opportunity to offer comments.

Sincerely,

WPSmith

Winston P. Smith, Ph.D.
JAS Conservation Committee Chair

Mendenhall Wetlands Study Group

Comments on Draft Level 1 Screening Results

March 17, 2023

This is in response to the Draft Level 1 PEL Screening Results presented in the Technical Memoranda of March 6, 2023 during the meeting of the Technical Committee regarding the 2nd Crossing. Our comments related to the Level 1 Screening results are presented below. Please refer to our January 30, 2023 document submitted to the DOWL group concerning the 2nd Crossing of Gastineau Channel.

First, we must point out that the PEL team does not appear ready to complete Level 1 screening. By PEL guidelines, and your described process, key environmental values must be considered, even at this early phase. That is why PEL was created—to efficiently shape a project in light of environmental and regulatory factors early in project development. Unfortunately, the PEL team has not yet gathered or presented useful information on wildlife, habitat, and human use of the Refuge. While more detailed information will likely be needed for additional adjustments and full documentation of Level 2 screening, the agencies and the public should have at hand at least the available information documenting the magnitude and importance of refuge resources, key habitats, uses, access points, and locations BEFORE alternatives are screened for further consideration.

Salmon Creek as the Preferred Alternative

The Salmon Creek crossing stands out as the best alternative to meet the Purpose and Needs identified for the PEL study. The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Salmon Creek crossing is at the intersection to the hospital, thus providing the best alternative for reduced transport/response time and access in case the existing bridge is compromised, or traffic is disrupted or blocked between the hospital and the bridge intersection.

The screening document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. Salmon Creek achieves this objective as well or better than the other alternatives proposed for Level 2 analysis.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan specifies that the use for a public transportation corridor is allowed only if "there is significant public need for the corridor which cannot be reasonably met off-refuge." The Salmon Creek crossing could be designed to avoid the refuge as well as the migratory bird concentration at, and north of, the stream mouth. (see "Hotspots" report, https://juneaunature.discoverysoutheast.org/wp-content/uploads/2018/04/accretion2004-23.pdf). This location best meets the priority Purpose and Needs and is the preferred alternative to avoid the legal conflict with the State law establishing the refuge.

Further, Salmon Creek may also be the preferred alternative under Section 4(f) of the U.S Department of Transportation Act. The act requires that FHWA determine that (1) the impacts of an alternative on 4(f) lands (in this case the MWSG Refuge) are de minimis, or (2) undertake a Section 4(f) Evaluation. If the 4(f) Evaluation identifies a feasible and prudent alternative that completely avoids Section 4(f) properties, it must be selected. We think Salmon Creek meets the purpose and need for the project, and if it is determined to be feasible and prudent to build, it will cause either de minimis impact on the Refuge or avoid it completely.

The draft Level 1 screening document appears to largely ignore the planning and regulatory issues outlined in the preceding two paragraphs. Table 3 (page 6) of the screening document shows that all of the alternatives rated are "consistent with plans, policies, and development code." None of the alternatives within the Refuge are consistent with the Refuge's management plan or with Section 4(f). They therefore should be marked (N).

The DOWL presentation did raise concerns on the feasibility of the Salmon Creek crossing due to the height and distance requirements to land it at the hospital intersection. The MWSG encourages that the Level 2 analysis for this alternative include consideration of connection points from the southeast end of Channel Drive to the southern edge of the exposed Salmon Creek delta to ensure that due diligence is given to the feasibilty of the crossing and to avoidance of the referenced migratory bird hotspot.

Eagle Creek

Our Study Group also favors keeping the Eagle Creek alternative for continued analysis. The risk of avalanche hazard should be evaluated to determine if this is a reasonable alternative. The Eagle Creek crossing site does meet the primary Purpose and Needs, and is also completely outside of the Refuge and further from the bird concentration area at the mouth of Salmon Creek, thus minimizing environmental impact and avoiding legal challenge for permitting a transportation corridor in the refuge. Analysis of this crossing option should consider moving the mainland landing site further northwest to reduce exposure to the avalanche zone.

Ranking

We believe that the impacts of the crossings within the Refuge, if included, need to be ranked in the Level 2 analysis. Currently, rankings between the cross-Refuge options are totally absent. From the standpoint of impacts to Refuge resources and users, the experts within our Study Group agree that the Sunny Point crossings have by far the greatest impact because they traverse the heart of the Refuge. Elevated routes at Vanderbilt and Twin Lakes, although crossing the Refuge, create fewer impacts to wetlands and human use. Shorebird and waterfowl uses in these areas are significant, however. The screening analysis should evaluate resource values and rank the different cross-refuge alternatives to estimate their relative impacts.

We were encouraged to hear the DOWL team tell the Stakeholder and Technical Advisory Groups that if any of these three cross-Refuge options are included in the Phase 2 analysis only elevated structures will be considered. All three of these crossing options run perpendicular to the tidal flow that creates the highly diverse and productive wetlands in the Refuge. A solid fill structure at any of these locations would have substantial impacts on tidal flows and thus a large area of the Refuge. Project proposals for solid fill causeways would face legal challenges and are unlikely to be permitted and therefore should not be included in the Level 2 analyses.

Resource Analysis

As part of the Level 2 screening the PEL Team should develop comprehensive and geographically specific information on both habitats and fish and wildlife use of the various parts of the Refuge, particularly areas affected by potential cross-refuge structures.

While wetlands are important to wildlife and have their own regulatory protections, your ranking must also consider the full range of wildlife use of project area habitats, given that mudflats and resting areas are also extremely important. Such areas must be identified for Level 2 screening for both the on- and off-refuge alternatives. See the SEALTrust 2004 habitat maps that could be updated to roughly identify key habitats such as low marsh vs high marsh, mudflats, mussel beds, open water and algal mats (https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf).

While existing bird observation data such as the "Hotspots" report noted above, as well as eBird, are focused on accessible refuge margins, they should be consulted to see where seasonal bird concentrations have been documented and where additional data are needed. Experienced observers, photographers, and hunters, including this group, can help to fill some of the information gaps early in this process, although additional information will be needed to support full consideration of crossing sites.

As mentioned above, all three of the areas considered for cross-Refuge structures should have further analysis. However, the Sunny Point crossing alternatives are of particular concern. These crossings impact the largest acreage of wetlands in a highly diverse and productive area of the Refuge. They will likely alter the hydrologic regime of the wetlands and negatively impact, not only Refuge lands, but also the wetlands protected by the SEAL Trust at Sunny Point as mitigation for the wetland impacts of the recent Airport expansion. The Sunny Point area is also at the top of the public use areas on the Refuge, especially for waterfowl hunting.

Public Uses Analysis

In the technical memoranda that explain the results of the draft Level 1 screening process the subject of public uses of the Mendenhall Wetlands and more specifically the MWSGR is almost completely omitted from consideration. Birding, dog-walking, photography, and other outdoor pastimes and the way that alternatives could impact them are not mentioned; the lone exception is the disclosure that the Sunny Point (east) alternative would encroach on a popular and long-standing waterfowl hunting area. However, even in that case there is no estimate of the effects of that encroachment, and it is quite likely that state or borough shotgun discharge setbacks from any of the mid-refuge crossings would severely constrain or shut down hunting in the refuge. State refuges are public use areas as well as environmental conservation areas and screening potential alternatives without consideration of the effects upon those uses ignores real differences between them. In general, the effects of a crossing will have much less impact on public uses at the eastern/southern end of the study area in more developed areas; if there was an "Effects on public uses" matrix line Salmon Creek would have a better rating than the cross-Refuge routes.

Bench Road

It is premature to choose a second Mainland-Douglas Island route before a planning effort for the northern and western portions of the island is completed, and illogical to pump additional traffic onto the North Douglas Highway, which ADOT has said is incapable of safely handling increased levels of use. The North Crossing PEL process has simultaneously and explicitly excluded a North Douglas Bench Road from the project description and yet shown it on project maps because it is a critical factor in making the project work. Land use planning for future development on the island and provision of a bench road or some other approach to avoiding impacts to the North Douglas Highway should precede, not follow, implementation of a second crossing. To that end, wetland mapping for this area should include the CBJ 2014-15 wetland boundaries that are more accurate than the NWI maps, particularly for forested wetlands.

Mitigation

Finally, some have argued that impacts of Refuge crossings can be fully mitigated and thus should continue to be considered. The Mendenhall Wetlands Study Group strongly disagrees. The Refuge consists of functioning intertidal wetlands which cannot be successfully manufactured. Even if they could be, the FAA has not allowed enhancement of wetland habitats on the Refuge for fear of increasing hazards of bird strikes. Cross-Refuge route alternatives impact primarily intertidal wetlands, which in Alaska are owned by the municipalities and the State, thus there are few if any options to purchase and protect functioning intertidal wetlands as mitigation. It is important to remember that, as we illustrated in our previous comments to the PEL Study Group (see: January 30, 2023 Mendenhall Wetlands Study Group document), the Mendenhall Wetlands are a unique and rare occurrence in Southeast Alaska. They rank along with the Stikine and Yakutat Forelands in their regional and global importance to migrating birds. They also provide significant support to the other fish and wildlife of Juneau and the region. We should do all we can to make sure Juneau meets its needs for safety and expansion without destroying this critical and unique resource that is at the center of our community.

Dear Ms. McCammon and the Juneau Douglas North Crossing PEL Study Team,

The Southeast Alaska Watershed Coalition appreciates being included in the Juneau Douglas Crossing Stakeholder Advisory Committee and all your efforts on the PEL Study to date. The Watershed Coalition is committed to promoting community-based watershed stewardship that reflects and supports people's deep cultural and economic connection to the land and water in this region. The Watershed Coalition does not own land or have a financial stake in the ultimate outcome of the Crossing decision-making process. Rather, we are interested in ensuring that the best available information about potential environmental impacts informs the decision-making process, and that this information is shared effectively with the public, which may ultimately make the decision about whether or where to build a crossing. We have three key concerns and suggestions at this time:

1. **Solicit meaningful feedback on alternatives and the assessment process:**
   From our perspective, meetings to date have provided little substance for the Stakeholder Advisory Committee to respond to. Maps with approximate locations of potential crossings in the absence of any detailed information about land ownership, environmental context, or other potential restrictions/considerations have made it very difficult to provide much meaningful feedback on alternatives. Assuming similar information has been shared with the Technical Advisory Committee, we have concerns about how participants' expertise is being effectively solicited and incorporated into the alternatives assessment process. We strongly encourage the project team to meaningfully engage with relevant agencies and experts during Phases 1 and 2, giving them sufficient time to assess information that is provided and contribute any new information/data that the planning team does not currently have access to. This will help to ensure that the best available data is being used, and expert knowledge can inform an assessment of how well alternatives "avoid, minimize, and mitigate impacts to the environment" and meet other project needs.
2. **Broaden the assessment of environmental impacts beyond the project footprint:**
   For example, linear feet of stream or acres of habitat impacted directly by the crossing may be similar across different options, but habitat quality, the species that utilize it, and its importance in the larger ecosystem cannot be captured with these metrics. Additionally, roads, bridges, and traffic impact ecosystems beyond their footprint by altering hydrologic dynamics, habitat character, and wildlife corridors. Just as impacts to and opportunities for residential and commercial areas are being considered in a community context, environmental impacts must be assessed beyond the footprint of the project. Engaging with relevant experts as suggested in comment 1 on these issues will provide insights beyond the number of (square) feet of habitat impacted. We strongly encourage the project team to explicitly incorporate a more thorough and scientifically valid assessment of environmental impacts in the assessment process.
3. **Make data relevant to decision-making accessible to the Advisory Committees and public:**
   We suggest that relevant GIS data that is being used to assess alternatives be made available (where legal) not only to Advisory Committees, but also to the public to help inform their assessment of potential impacts and benefits of potential crossings. A web map with relevant layers compiled in one place would allow the public to explore potential impacts of the alternatives in a more meaningful way than current project maps provide for. Additionally, the recent traffic study has been repeatedly cited as supporting an important study need, but this data has not been shared with the Advisory Committees or the public (as far as we can tell).

Having direct access to this study and underlying data would help people to understand more fully current traffic conditions, and, based on the origin-destination study, how much improvement could be expected from different alternatives.

In summary, the Southeast Alaska Coalition suggests that appropriate experts be consulted in a meaningful way and have an opportunity to inform both the underlying data and the assessment process, that environmental impacts be considered more thoroughly than is currently proposed, and that the data that will be used to assess alternatives be made available to the Advisory Committees and the public in an accessible format. We believe taking these steps will help promote informed decision-making and responsible resource stewardship by the community as it determines whether/where to pursue a second crossing.

Sincerely,

Rebecca Bellmore
Science Director
Southeast Alaska Watershed Coalition

From: Morgan McCammon
To: [redacted]; "Daniel King"; [redacted]; Matt Little; Dave Hanna; Alaska Concrete Casting
Cc: [redacted] Irene Gallion; [redacted]; Steven Noble; Renee Whitesell; Nina Keller Horne; Jovie Garcia; Theresa Dutchuk; Sean Holland; Ryane Gray; Marella Gungob; [redacted]
Subject: Juneau Douglas North Crossing Advisory Committee Update
Date: Tuesday, May 2, 2023 2:47:00 PM
Attachments: JDNC_Level 1 Screening Memo_Final.pdf
JDNC_Advisory Committee Comment Response Matrix _Level 1 Screening Memo_FINAL.pdf
Origin Destination Data Memo_Final.pdf
UPDATED Bridge Volume Forecast Memo V2.pdf

Good afternoon, Juneau Douglas North Crossing Advisory Committee Members,

Thank you for your continued participation in the Juneau Douglas North Crossing PEL Study Advisory Committees. We appreciate the feedback provided on the draft Level 1 Screening Memo. This feedback resulted in some changes that we wanted to share. Attached are the revised Level 1 Screening Memo and the comment response matrix developed to address comments received from Advisory Committee members.

Here is a summary of the study team's response to comments:

- The study team added the Mendenhall Peninsula alternative to the list of detailed alternatives continuing on through Level 2 Screening based on Advisory Committee member feedback. The description in the Level 1 Screening Memo (pages 8-10) was updated.
- Some feedback was directed to Level 2 Screening and will be considered as the study team conducts Level 2 Screening, such as:
    - Reviewing community area plans and documenting whether alternatives are consistent with these.
    - Documenting potential positive and negative impacts on mitigation properties, recreational access, viewsheds, interchanges on both sides of a potential crossing, airport operations, freight, economic considerations, emergency response, and land ownership.
    - Developing more details, including structure types and interchanges, for the alternatives to compare with the requirements and protections of natural resources in the area, including the Mendenhall Wetlands State Game Refuge, fresh and marine water resources, habitat, and others.
    - Developing cost analysis for each detailed alternative.

Also attached are the Origin Destination Data and Bridge Volume Forecast Memos referred to in previous meetings.

We will be sharing information soon for the next Advisory Committee meetings to discuss the draft Level 2 Screening results. Based on feedback received regarding a preference, we will hold two meetings presenting the same information, one in-person and one virtual. We will invite members of both Advisory Committees to attend one or the other based on their preference. While we plan on sharing screening results, we will ensure to provide ample time for group discussions.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Comment Number	Comment	Response	Commentor	PDF Page	Location
1	Table 2 (page 5) summarizes the results of screening each alternative for the Additional Goals. For the goal of maintaining the visual, cultural, and scenic identity of Juneau and Douglas Island, the West Sunny Point, East Sunny Point, and Vanderbilt alternatives are assigned a value of "medium." These values should be changed to "low" for the following reasons: **a.** The stretch of Gastineau Channel encompassing the Sunny Point and Vanderbilt Creek alternatives was designated in CBJ's 2008 Comprehensive Plan as a scenic corridor/viewshed (see enclosed figure). The community of Juneau highly values this scenic viewshed and that recognition justifies evaluating this additional goal as "low" for the Sunny Point alternatives and the Vanderbilt alternative. **b.** The community of Juneau further demonstrated its interest in the Refuge in the CBJ Lemon Creek Area Plan/. i. The plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access; planning for this "multimodal trail" is currently underway. ii. This information from the Lemon Creek Area Plan further illustrates the importance of the undisturbed Refuge in the Sunny Point/Lemon Creek/Vanderbilt region for public access and viewsheds. Placing a second crossing in this vicinity would significantly damage the visual and scenic identity of the Lemon Creek neighborhood and the whole Juneau community, as well as undermining current plans to develop recreational resources in this area. **c.** These locations represent some of the widest points of the Refuge, resulting in a significant stretch of open estuarine wetlands, uninterrupted by human development. This open viewshed is particularly unique in Southeast Alaska, where so much of our landscape is dominated by steep mountains and towering trees – only 2% of land area is comprised of tidal estuaries (Ecological Atlas of Southeast Alaska, Audubon Alaska). This iconic view is seen by visitors flying into Juneau International Airport, each tourist traveling from downtown, and, most importantly, every resident who travels on Egan Drive for work, errands, or other daily activities. Placing a large crossing structure at one of these locations would dramatically decrease the visual, cultural, and scenic identity of our community. **d.** Locating a crossing structure at one of these locations would significantly disrupt recreational uses of the Refuge. The Refuge is a unique recreational destination in Juneau, due to its flat elevation profile and open landscape, offering opportunities SEALT Comments on Juneau-Douglas North Crossing PEL Study's Level 1 Screening Page 2 of 4 unavailable at most of Juneau's parks and trails. A crossing structure would restrict access to the Refuge by creating a barrier impassable by Refuge users, as well as degrading users' ability to enjoy an undisturbed natural environment, significantly impacting the cultural identity of Juneau as a community with easy access to a diversity of outdoor recreation opportunities.	**a.** We understand that the 2008 Comprehensive Plan included the Sunny Point area of the refuge as part of the designated scenic corridor/viewshed. This designation did not continue into the 2013 update to the plan and thus our analysis as part of the Level 1 Screening labeled this area as medium in relation to the alternatives west of the airport that continued to have the scenic corridor/viewshed designation in the 2013 Comprehensive Plan. **b.** i. Thank you for your comments about the Lemon Creek Area Plan and the community's efforts for a coastal trail. We will make sure this issue is documented and addressed during the Level 2 Screening. ii. Noted - we'll make sure this is documented in Level 2 Screening **c.** Understood. We will endeavor to further evaluate the visual and community impacts of all the shortlisted alternatives as part of the Level 2 Screening. **d.** Both positive and negative impacts to recreational access that could result from each alternative will be documented in the Level 2 Screening.	K. Garrett, SEALT	5	Table 2
2	Table 3 (page 6) states that all of the alternatives are "Consistent with plans, policies, and development code." Review of this criterion should be updated to reflect that none of the alternatives within the Refuge are consistent with several key planning documents and should be marked "N." The alternatives within the Refuge are inconsistent with the following planning documents: **a.** Mendenhall Wetlands State Game Refuge Management Plan: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose. **b.** USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the as high-functioning estuarine wetland mitigation sites around Sunny Point. **c.** 2013 CBJ Comprehensive Plan: i. The alternatives located within the Refuge's boundaries are also inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states "To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards." ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damaging to the visual, cultural, and scenic identity of the community. **d.** Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.	Thanks for your comments. As we move into Level 2 Screening we will be developing more detailed versions of the shortlisted alternatives. This information will give us more data to further assess the consistency of each alternative with the requirements and protections that are in place for the refuge. At the Level 1 Screening stage, our assessment is that these alternatives could be accomplished in a manner that is consistent with these plans and that the potential impacts that are viewed as inconsistent with the plans could be mitigated.	K. Garrett, SEALT	6	Table 3
3	Table 3 (page 7) notes that all of the alternatives received "high" levels of public support, except for the Twin Lakes and Salmon Creek alternatives. Because the figures illustrating levels of public support for the different alternatives presented by the Study Team are not reflective of the email comment log that was shared with the Technical Advisory Committee, it is not possible for the Advisory Committees to determine whether this is an accurate assessment without being provided the results of the survey. When will the full survey results be shared with the Technical Advisory Committee?	The survey results will be made available to the stakeholder groups as soon as we are able to prepare the data for broader review with protections for commenter's private information.	K. Garrett, SEALT	7	Table 3
4	The narratives for each alternative screened provides statements about each alternative's impact on travel times, presumably based on the origin-destination study. This study must be made publicly available so that stakeholders and the public can understand the analysis supporting these statements.	The Origin Destination Study is currently under review and will be made available to the public when it has been finalized.	K. Garrett, SEALT		

5	Please review the Level 1 Alternative Screening Results narratives to ensure consistency across the discussions of each alternative. For example: **a.** The discussion of the Mendenhall Peninsula alternative states that this alternative would result in "adverse visual impacts associated with the construction of a road at the top or [sic], or part way up a ridge" but the discussion of none of the other alternatives discusses the adverse visual impacts of a crossing structure across the Mendenhall State Game Refuge. It is unequal to provide a concrete statement about the adverse impacts of one location (Mendenhall Peninsula) and defer to "further analysis" for the other locations (e.g., page 13, page 15, etc.). **b.** The advantages/disadvantages narratives for the West and East Sunny Point alternatives should be reviewed for consistency, given the similarities between the two alternatives. **c.** The discussion of the Twin Lakes alternative identifies the potential intersection with Egan Drive as a disadvantage of this alternative. All other locations requiring "new" intersections should either have this considered in their analysis (e.g., West and East Sunny Point), or this disadvantage for the Twin Lakes alternative should be removed.	**a.** The visual impacts of the alternatives west of the airport have a heightened sensitivity because of the designation in the 2013 Comprehensive Plan. However, our team acknowledges that all of the alternatives have the potential to impact the viewshed both in and outside the refuge. We will review the language to see if any changes need to clarify that this is a concern and that it will be evaluated during Level 2 Screening and a future NEPA process. **b.** Understood. We will review them for consistency. The primary difference between the two is that the West Sunny Point Area alternative does not directly impact the footprint of the mitigation properties. **c.** The alternatives each have a different way of tying into Egan Drive. West Sunny Point Area would tie in via a frontage road to the interchange and to the adjacent signalized intersection. Sunny Point Area would tie into the existing interchange. Vanderbilt would likely require a new interchange to replace the signal. Twin Lakes and Salmon Creek would also likely require interchanges with Egan Drive -- and these two locations are much more problematic to find the space to build these interchanges than at the other alternatives. We will review the descriptions to make sure this is clear.	K. Garrett, SEALT	8-27	Level 1 Alternatives Screening Results
6	In all reports, technical memoranda, and other materials, please note that the Southeast Alaska Land Trust's properties on the Mendenhall Peninsula, around Sunny Point, and on Hendrickson Point are wetland mitigation sites under Section 404 of the Clean Water Act, in addition to being conservation properties (e.g., pages 12 and 15). It is important for all stakeholders and decisionmakers to understand that impacts to these sites would result in significant additional regulatory complexity, time, and cost. a. In addition, these added regulatory complexities and increased costs should be noted when relevant. For example, on page 15 impacting SEALT conservation property is noted as a disadvantage of the East Sunny Point alternative and this should be expanded to state: "An alignment that meets design standards for horizontal curves will likely impact Southeast Alaska Land Trust conservation properties and wetland mitigation sites, resulting in increased costs and permitting complexity."	Thanks for the comment. We concur and will revise the language to make sure this is clearly understood.	K. Garrett, SEALT	12 & 15	East Sunny Point alternative disadvantages, bullet 2
7	Based on the appendix tables, it appears that the Level 1 screening for impacts to the hydrologic connectivity at each alternative relied on Figure 11 in the Environmental Setting Report. This figure seems to focus on streams and freshwater inputs. Screening for hydrologic connectivity should include consideration of the tidal flows through the channel, as these saltwater inputs sustain the estuarine wetlands. Are you able to re-screen each alternative in Level 1 screening with this in mind? If not, how will you be incorporating consideration of saltwater inputs into Level 2 screening?	The estuarine impacts will be evaluated in more detail during Level 2 Screening. We will develop road alignments, profiles, length of structural segments, and the slope limits of the alternatives that will enable our team to assess the hydrological needs and impacts on all fresh and marine water sources.	K. Garrett, SEALT	29 - end	Appendix, Figure 11, Step 2, Natural Environment, Hydrologic connectivity impacted
8	At the joint advisory committee meeting on Monday March 6, it seemed that each alternative had additional considerations that weren't presented in the Technical Memo. For example, the Study Team stated that there was some concern about the West Sunny Point alternative's impacts to the airport, which could be a barrier to construction at that location. How will those additional considerations be documented so that there is public validation for the findings of this study?	We will add Juneau Airport's comments and concerns regarding the West Sunny Point alternative's impacts on the airport to the memo.	K. Garrett, SEALT	8-27	Level 1 Alternatives Screening Results
9	In reports, technical memoranda, and other materials, please provide a definition of Section 4 (f) and other resources with important legal designations.	This is a required element of the NEPA process of a project. During the PEL process we will address this request in the PEL study -- at a planning level. The Section 4(f) analysis will not be completed until the NEPA process, but we will endeavor to make sure the requirements of the regulations are clear as they relate to the analysis and recommendations regarding the alternatives. The potential permits memo defines regulatory framework, approvals, and permits that the project may need in the future.	K. Garrett, SEALT	6	Table 3, Natural Environment, Use of Section 4(f)/6(f) protected lands
10	How are you going to consider indirect affects to the natural environment? For example, the degree of impact is different in different locations. A structure with the exact same size of footprint at Sunny Point and Salmon Creek would score exactly the same in your Level 2 screening criteria (as written), but would in reality have dramatically different impacts on the natural environment, Refuge, and habitat.	During the PEL process, the issue of relative impacts based on the value of the resource will be acknowledged and documented in the PEL study. We are also revising our screening criteria with a 5-point scoring system that will allow our team to better report the relative impacts/benefits of the alternatives. We would point out that this is still a planning document and we will not be conducting field investigations during the PEL process to better map the relative value of the resources. We will be limited by the data that is existing and available to our team. The intent is that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Groups, we will be able to describe the studies that will be needed during the NEPA phase to assess, map, and better understand the relative value of the resources that will be crossed by each alternative.	K. Garrett, SEALT		

11	In Level 2 screening, how will you include impacts to Refuge access points, which will affect hunting, fishing, subsistence, and recreational activities for users in the project area?	Similar to the response to the previous comment, our team will use all available resources and consultations with the regulatory and stakeholder groups to understand and document these impacts so that the picture is as clear as possible when making recommendations on alternatives to carry forward into a NEPA process. During NEPA scoping, the agencies will have formal consultations and opportunities to influence the scope of the studies that will be required to complete the environmental documentation.	K. Garrett, SEALT		
12	In Level 2 screening, how will you be taking into consideration the costs and challenges of replacement for impacts to our mitigation sites when evaluating the West and East Sunny Point alternatives? It is important that stakeholders and decision makers are made aware of the regulatory complexities, legal challenges, and significant costs associated with these alternatives. **a.** The SEALT mitigation sites provide carefully matched in-kind compensatory mitigation for impacts resulting from the Juneau airport's expansion, as outlined in that project's USACE permit. If the regulators were to approve a scheme to replace these mitigation sites, replacement mitigation sites that provide in-kind mitigation for the airport project would need to be identified and approved by both SEALT and the regulators. **b.** There are few, if any, appropriate parcels within the Mendenhall Wetlands complex that could provide similar wetland function to these special, unique, and rare aquatic sites. For this reason, offsetting the impacts to existing mitigation sites would be a major project to ensure that the permit for the Juneau airport's expansion remains compliant. The functional impacts resulting from a second bridge between Juneau and Douglas Island would then have to be permitted and mitigated separately. We are challenged to see how the costs would be calculated adequately, let alone the functional analysis and planning necessary for "double mitigation". **c.** In order for decision-makers at the municipal and state levels to make an informed choice about the alternatives, their requirements, and their expense, how are you planning to account for the time, money, and work products required for impacting SEALT's mitigation sites?	During the PEL process, we will endeavor to document the process and to characterize the complexity and range of costs that could be associated with impacts on the SEALT lands. We will not be advancing this to the point of identifying options or specific costs. Costs of impacts to wetland mitigation sites, versus impacts to unencumbered wetlands, will be magnitudes higher. Refining costs will be completed during the NEPA process if one of the recommended alternatives has direct impacts on the mitigation parcels.	K. Garrett, SEALT		
13	We recommend that the PEL Study Team familiarize themselves with the USACE permitting process and compensatory mitigation under Section 404 of the Clean Water Act in order to fully capture the costs associated with providing mitigation for a project of this scale. It is likely that compensatory mitigation will be a not-insignificant cost for a project of this magnitude and this should be reflected in the analysis of whether each alternative is feasible.	Thank you for the comment.	K. Garrett, SEALT		
14	To begin with, I feel one of the most important parts of the process has a serious flaw and this is the projected traffic study. To only consider current traffic needs and patterns for a project that is meant to allow growth for the community is unacceptable. The North and West side of Douglas Island are the logical candidates for residential, commercial, and industrial expansion. Indeed the fact that all of Juneau's' freight and most of its fuel has to be trucked through an avalanche zone and a landslide zone through the heart of town on its busiest street gives many of us pause and is a strong incentive for moving these facilities to West Douglas. With this in mind, it is premature to remove both the north of the airport alternatives.	Thank you for the comments. The economic benefits of the second crossing are part of the additional goals that are a companion to the Purpose and Need. Our team has been working with CBJ to better understand and provide data that is necessary to account for these benefits in our assessment. We acknowledge that there is an aspirational benefit and will continue to work with CBJ Planning to incorporate economic impacts into the PEL Study documentation and recommendations. A separate sub-area study is being completed by CBJ, which will assist to consider this issue in more detail as part of the Level 2 Screening. Order of Magnitude Costs of the alternatives was generated as part of the Level 1 Screening which showed the Mendenhall Peninsula Alternative and the North Airport Alternative at more than $650M and $2B, respectively. These extraordinary costs weighed in on our decision to not carry them forward to Level 2. However, in response to Advisory Committee Member concerns, we have determined that we will include the Mendenhall Peninsula alternative in the Level 2 Screening to better address the economic, cost, and other issues.	D. Hanna, Access Alaska		
15	The Salmon Creek alternative does mention that there are concerns with right of way acquisitions. It could go on to explain that this area is currently the only alternative location to bring large freight barges into and handle the freight loads. Two of the major freight distributors are located here which is also concerning. Disrupting this could have serious consequences.	We appreciate this comment and will be working during Level 2 Screening to determine if preserving freight at this location is feasible under this alternative. We understand the magnitude of this cost and if this alternative is recommended to proceed to future project development, this alternative will require an assessment of how the property owner will be compensated and the secondary impacts of how that freight will have to be accommodated elsewhere in Juneau.	D. Hanna, Access Alaska	20-22	Salmon Creek alternative disadvantages
16	The Vanderbilt location would have a direct impact on the following streams; West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek. It would also require substantial fills in the intertidal areas.	We will endeavor during Level 2 Screening to address the hydrological impacts (both freshwater and marine) of all of the alternatives advancing to detailed alternative development.	D. Hanna, Access Alaska	16-17	Vanderbilt alternative disadvantages
17	In contrast, The Sunny Point location is strategically located at the existing interchange needing little fill in the wetlands and would not impact any of the above mentioned streams. [West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek] Three of these streams are already listed as impaired waterbodies. On the Douglas Island side, the city already owns enough property that no residences need be impacted. They also own property directly across the Douglas Highway which would allow access to a future bench road.	Thanks for this comment. We will document and detail the impacts of each alternative in the PEL study.	D. Hanna, Access Alaska	12-15	Sunny Point alternatives advantages

18	The north side of the airport scored low for some puzzling reasons. A low scoring for proximity to commercial districts flies in the face of reason. Any realtor will tell you that proximity to a major thoroughfare raises the value of the property. It does not diminish it. This alternative would actually open up more industrial zoned property. Future development on West Douglas will demand quick access to the Mendenhall Valley population center. Furthermore, it is debatable as to the need for a tunnel in this location.	Thanks for this comment. The low scoring that is shown for this criterion is intended to account for the quality of life and disturbance impacts on properties that would be adjacent to a new major transportation corridor. However, we acknowledge that there is a potential economic benefit for some properties that are located along transportation corridors. We will revisit the Level 2 Screening criteria to make sure this issue is added to the next stage of the analysis.	D. Hanna, Access Alaska	10-11	North Airport alternative
19	The Mendenhall Peninsula route is another that would be ideal once North and West Douglas are developed. The pitfalls are stated that it would divide neighborhoods, be too close to residential areas and necessitate a 140' tall bridge due to the grade change. The fact is the central route would appear to avoid all existing residential as it opened up additional CBJ land for much needed housing. A perusal of google earth shows that there is adequate space to maintain a desired 6% grade down to a 40' elevation. This is a dramatic difference. In addition, I feel that the fact that this option would likely have the least impact on the Mendenhall Refuge needs more recognition.	There are a wide variety of alternatives that are conceivable at the Mendenhall Peninsula crossing. The description that we included in the Level 1 screening is just one of those options. We believe this option to be generally the most consistent with the feedback we have received from the regulatory and resource agencies. However, we acknowledge that other options could lower the profile, reduce the clearance of the bridge, and reduce the visibility of the road on the peninsula. The estimated cost range for this alternative is between $650M and $750M. Variations to the design are unlikely to have a significant impact on the cost, but as described in our response to comment 14, we have reconsidered this alternative and we will be moving it into Level 2 Screening to enable a more detailed evaluation of the issues raised by the stakeholders.	D. Hanna, Access Alaska	8-9	Mendenhall Peninsula alternative
20	For these and other reasons I request that the ranking be re-visited. In addition, I feel that none of the alternatives can be seriously considered until the issue of not considering future development is cured.	As requested, we have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2. The other alternatives previously identified to be screened out for Level 2 have not changed. To the extent that is reasonable at this planning stage, we have been and will continue to work with CBJ to quantify the north and west Douglas Island development and assess the effect on the alternatives.	D. Hanna, Access Alaska		
21	Reconsider Level 1 Step 1: Twin Lakes, Salmon Creek, Eagle Creek and Downtown do not meet proposed purpose and need. Twin Lakes and Salmon Creek should also be removed from Additional Goals Screening. Salmon Creek and Eagle Creek do not provide improved response. Twin Lakes provides redundant response.	Thank you for the thoughtful analysis of emergency response as it relates to the various alternatives. We will review your analysis and take it into consideration. Further analysis on this issue is needed during Level 2 Screening to determine the effectiveness of the Salmon Creek alternative.	I. Gallion, CBJ		
22	The stated reason for many who support a second crossing is ability to develop on the west side of Douglas Island. As a result, there may be many people and groups who are disappointed to not see the two northernmost options move forward, given that they provide the shortest route from this area to the Mendenhall Valley and hospital. If you move forward with eliminating these choices, I would suggest you better document the reasons for removal (i.e.., the infeasibility of these options). For example, providing a cost estimate of these options in the memo would provide a more compelling argument that these options are worth eliminating at this phase. Otherwise, you will have many in the community continue to hold up these alternatives as the best alternatives, which will severely hamper the ability of the community to bring this project to fruition.	We have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2. Order of Magnitude Cost estimates have been prepared and will be distributed as part of the comment responses. These costs will continue to be refined for the shortlisted alternatives during Level 2 Screening.	C. Woll, CBJ Assemblymember		
23	If you are not able to provide a bit more detail on the cost/feasibility for those two alternatives, I'd suggest moving those alternatives forward to the next stage so that you CAN provide that detail. Although I agree that these two alternatives are likely not the best routes given those feasibility concerns, I do worry that if there is still questions in people's minds about that then the project will hit political roadblocks early.	Thanks for your comment. Please see our response to Comment 22.	C. Woll, CBJ Assemblymember		
24	On a related note, my understanding is that a second crossing can only be built across the Refuge if it can be shown that other alternatives are not feasible. I'm not legal expert, but that suggests to me that providing more detail on the feasibility of the Mendenhall Peninsula option will be necessary if people want to move forward with any of the options suggested that run through the Refuge. I'm not advocating for those alternatives that run through the Refuge nor the Mendenhall Peninsula option, but instead just pointing out that more feasibility information may be helpful for the northern routes to answer important questions early.	The language in the legislation that created the refuge is clear about the rigorous evaluation and need that must be demonstrated to justify and permit a new transportation corridor across the refuge. Thank you for the comment.	C. Woll, CBJ Assemblymember		
25	I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location.	Agreed. We will clarify that both Sunny Point alternatives and the Vanderbilt alternatives have similar impacts on the hunting areas.	R. Churchwell, DFG	13	West Sunny Point Area alternative, disadvantages

26	2. Key Points •The Mendenhall Wetlands Important Bird Area provides vital stopover habitats that are limited within Southeast Alaska, most notably saltmarsh/grasslands and expansive glacial-fed tidal flats. •Fragmentation of wetlands (regardless of mitigation) diminishes habitat quality and reduces abundance and diversity of birds that inhabit or seasonally use habitats. 3. Threats/Risks •Construction degrades feeding and resting areas, especially for migratory shorebirds. •Air and habitat pollution from vehicle traffic (hydrocarbons, litter). •Light and noise pollution and disturbance. •Collisions (vehicles, bridge structural elements).	Thanks for this feedback. During the PEL process, we are striving to document the known issues and to identify potential data gaps and studies that may be needed during the NEPA phase for any alternatives that are recommended to advance beyond the PEL study. We anticipate that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Groups, we will be able to describe the existing conditions and the studies that will be needed during the NEPA phase to assess, map, and better understand wetlands, wildlife, and habitat issues that could affect the future selection of the preferred alternative.	W. Smith, Juneau Audubon Society	8-27	Level 1 Alternatives Screening Results
27	First, we must point out that the PEL team does not appear ready to complete Level 1 screening. By PEL guidelines, and your described process, key environmental values must be considered, even at this early phase. That is why PEL was created—to efficiently shape a project in light of environmental and regulatory factors early in project development. Unfortunately, the PEL team has not yet gathered or presented useful information on wildlife, habitat, and human use of the Refuge. While more detailed information will likely be needed for additional adjustments and full documentation of Level 2 screening, the agencies and the public should have at hand at least the available information documenting the magnitude and importance of refuge resources, key habitats, uses, access points, and locations BEFORE alternatives are screened for further consideration.	Thank you for your comments. We are following the adopted State of Alaska PEL Guidebook as well as best practices from other states that routinely use the PEL study process. We have gathered known sources of GPS data related to wetlands, habitat, refuge resources, access, hydrology, land ownership, etc. We have consulted in one-on-one meetings with the regulatory agencies that have jurisdiction in this area as well as all of the known stakeholders to gather their input and potential data. We have researched all of the known plans and regulations that affect this area. If you have data that could benefit our assessment or provide greater detail to support our Level 2 Screening analysis, we would greatly appreciate you providing that data.	M. Robus, Mendenhall Wetlands Study Group		
28	The draft Level 1 screening document appears to largely ignore the planning and regulatory issues outlined in the preceding two paragraphs. Table 3 (page 6) of the screening document shows that all of the alternatives rated are “consistent with plans, policies, and development code.” None of the alternatives within the Refuge are consistent with the Refuge’s management plan or with Section 4(f). They therefore should be marked (N).	Thanks for your comments. As we move into Level 2 Screening we will be developing more detailed versions of the shortlisted alternatives. This information will give us more data to further assess the consistency of each alternative with the requirements and protections that are in place for the refuge. At the Level 1 Screening stage, our assessment is that these alternatives could be accomplished in a manner that is consistent with these plans and that the potential impacts that are viewed as inconsistent with the plans could be mitigated.	M. Robus, Mendenhall Wetlands Study Group	6	Table 3
29	The DOWL presentation did raise concerns on the feasibility of the Salmon Creek crossing due to the height and distance requirements to land it at the hospital intersection. The MWSG encourages that the Level 2 analysis for this alternative include consideration of connection points from the southeast end of Channel Drive to the southern edge of the exposed Salmon Creek delta to ensure that due diligence is given to the feasibility of the crossing and to avoidance of the referenced migratory bird hotspot.	Agreed. Thank you for the comment.	M. Robus, Mendenhall Wetlands Study Group	20-22	Salmon Creek alternative
30	Our Study Group also favors keeping the Eagle Creek alternative for continued analysis. The risk of avalanche hazard should be evaluated to determine if this is a reasonable alternative. The Eagle Creek crossing site does meet the primary Purpose and Needs, and is also completely outside of the Refuge and further from the bird concentration area at the mouth of Salmon Creek, thus minimizing environmental impact and avoiding legal challenge for permitting a transportation corridor in the refuge. Analysis of this crossing option should consider moving the mainland landing site further northwest to reduce exposure to the avalanche zone.	Thank you for the comment. Our team has determined that this alternative fails to meet the purpose and need due to the marginal benefit to redundant access and the lack of improvement in emergency response. In accordance with the Level 1 Screening criteria, this alternative will not be progressing to Level 2.	M. Robus, Mendenhall Wetlands Study Group	23-24	Eagle Creek alternative
31	We believe that the impacts of the crossings within the Refuge, if included, need to be ranked in the Level 2 analysis. Currently, rankings between the cross-Refuge options are totally absent. From the standpoint of impacts to Refuge resources and users, the experts within our Study Group agree that the Sunny Point crossings have by far the greatest impact because they traverse the heart of the Refuge. Elevated routes at Vanderbilt and Twin Lakes, although crossing the Refuge, create fewer impacts to wetlands and human use. Shorebird and waterfowl uses in these areas are significant, however. The screening analysis should evaluate resource values and rank the different cross-refuge alternatives to estimate their relative impacts.	During the PEL process, the issue of relative impacts based on the value of the resource will be acknowledged and documented in the PEL study. We are also revising our screening criteria with a 5-point scoring system that will allow our team to better report the relative impacts/benefits of the alternatives. We would point out that this is still a planning document and we will not be conducting field investigations during the PEL phase to better map the relative value of the resources. We will be limited by the data that is existing and available to our team. The intent is that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Committees, we will be able to describe the studies that will be needed during the NEPA phase to assess, map, and better understand the relative value of the resources that will be crossed by each alternative.	M. Robus, Mendenhall Wetlands Study Group		

32	We were encouraged to hear the DOWL team tell the Stakeholder and Technical Advisory Groups that if any of these three cross-Refuge options are included in the Phase 2 analysis only elevated structures will be considered. All three of these crossing options run perpendicular to the tidal flow that creates the highly diverse and productive wetlands in the Refuge. A solid fill structure at any of these locations would have substantial impacts on tidal flows and thus a large area of the Refuge. Project proposals for solid fill causeways would face legal challenges and are unlikely to be permitted and therefore should not be included in the Level 2 analyses.	Consideration of a structurally supported road to reduce the impacts of alternatives that cross the Refuge is part of our Level 2 Screening. Some fill at the ends of the crossing locations is likely and we will be able to better quantify those impacts when we create the concept drawings, road profiles, cross-sections, and slope limits. We are aware of the language that is in the Refuge legislation.	M. Robus, Mendenhall Wetlands Study Group		
33	As part of the Level 2 screening the PEL Team should develop comprehensive and geographically specific information on both habitats and fish and wildlife use of the various parts of the Refuge, particularly areas affected by potential cross-refuge structures.	We will be assessing the Level 2 Screening based on existing information, but we will identify data gaps and studies in the Final PEL Study that will be needed for assessing the alternatives that are recommended to proceed into the NEPA phase. Regulatory agencies and the public will have an opportunity to provide input on the scope of the environmental studies when the NEPA phase is initiated.	M. Robus, Mendenhall Wetlands Study Group		
34	While wetlands are important to wildlife and have their own regulatory protections, your ranking must also consider the full range of wildlife use of project area habitats, given that mudflats and resting areas are also extremely important. Such areas must be identified for Level 2 screening for both the on- and off-refuge alternatives. See the SEAL Trust 2004 habitat maps that could be updated to roughly identify key habitats such as low marsh vs high marsh, mudflats, mussel beds, open water and algal mats (https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf).	Thank you for your comment. See response to comment 31 and 33.	M. Robus, Mendenhall Wetlands Study Group		
35	While existing bird observation data such as the “Hotspots” report noted above, as well as eBird, are focused on accessible refuge margins, they should be consulted to see where seasonal bird concentrations have been documented and where additional data are needed. Experienced observers, photographers, and hunters, including this group, can help to fill some of the information gaps early in this process, although additional information will be needed to support full consideration of crossing sites.	Thank you for the comment. See response to comments 31 and 33.	M. Robus, Mendenhall Wetlands Study Group		
36	As mentioned above, all three of the areas considered for cross-Refuge structures should have further analysis. However, the Sunny Point crossing alternatives are of particular concern. These crossings impact the largest acreage of wetlands in a highly diverse and productive area of the Refuge. They will likely alter the hydrologic regime of the wetlands and negatively impact, not only Refuge lands, but also the wetlands protected by the SEAL Trust at Sunny Point as mitigation for the wetland impacts of the recent Airport expansion. The Sunny Point area is also at the top of the public use areas on the Refuge, especially for waterfowl hunting.	Thank you for your comment. Please see response to Comments 25, 31, and 33.	M. Robus, Mendenhall Wetlands Study Group		
37	In the technical memoranda that explain the results of the draft Level 1 screening process the subject of public uses of the Mendenhall Wetlands and more specifically the MWSGR is almost completely omitted from consideration. Birding, dog-walking, photography, and other outdoor pastimes and the way that alternatives could impact them are not mentioned; the lone exception is the disclosure that the Sunny Point (east) alternative would encroach on a popular and long-standing waterfowl hunting area. However, even in that case there is no estimate of the effects of that encroachment, and it is quite likely that state or borough shotgun discharge setbacks from any of the mid-refuge crossings would severely constrain or shut down hunting in the refuge. State refuges are public use areas as well as environmental conservation areas and screening potential alternatives without consideration of the effects upon those uses ignores real differences between them. In general, the effects of a crossing will have much less impact on public uses at the eastern/southern end of the study area in more developed areas; if there was an "Effects on public uses" matrix line Salmon Creek would have a better rating than the cross-Refuge routes.	Thank you for your comments. The issue of hunting is addressed in Comment 25. We will review our description of the impacts and add more description of public uses on the alternatives.	M. Robus, Mendenhall Wetlands Study Group	8-27	Level 1 Alternatives Screening Results
38	It is premature to choose a second Mainland-Douglas Island route before a planning effort for the northern and western portions of the island is completed, and illogical to pump additional traffic onto the North Douglas Highway, which ADOT has said is incapable of safely handling increased levels of use. The North Crossing PEL process has simultaneously and explicitly excluded a North Douglas Bench Road from the project description and yet shown it on project maps because it is a critical factor in making the project work. Land use planning for future development on the island and provision of a bench road or some other approach to avoiding impacts to the North Douglas Highway should precede, not follow, implementation of a second crossing. To that end, wetland mapping for this area should include the CBJ 2014-15 wetland boundaries that are more accurate than the NWI maps, particularly for forested wetlands.	The Origin Destination study will be available for public review once completed. This document will help stakeholders understand where traffic will divert for each of the alternatives. The second crossing does not of itself generate increased traffic on North Douglas Highway and does not have a significant impact on the overall traffic volumes on North Douglas Highway. An additional crossing would change the volumes at specific locations and the travel patterns of highway users. The concept of a bench road was a common comment from the public and it has been documented with DOT&PF as the possible subject for a future study/project - with or without the construction of a second crossing.	M. Robus, Mendenhall Wetlands Study Group		

39	Finally, some have argued that impacts of Refuge crossings can be fully mitigated and thus should continue to be considered. The Mendenhall Wetlands Study Group strongly disagrees. The Refuge consists of functioning intertidal wetlands which cannot be successfully manufactured. Even if they could be, the FAA has not allowed enhancement of wetland habitats on the Refuge for fear of increasing hazards of bird strikes. Cross-Refuge route alternatives impact primarily intertidal wetlands, which in Alaska are owned by the municipalities and the State, thus there are few if any options to purchase and protect functioning intertidal wetlands as mitigation. It is important to remember that, as we illustrated in our previous comments to the PEL Study Group (see: January 30, 2023 Mendenhall Wetlands Study Group document), the Mendenhall Wetlands are a unique and rare occurrence in Southeast Alaska. They rank along with the Stikine and Yakutat Forelands in their regional and global importance to migrating birds. They also provide significant support to the other fish and wildlife of Juneau and the region. We should do all we can to make sure Juneau meets its needs for safety and expansion without destroying this critical and unique resource that is at the center of our community.	Thank you for your comments. We look forward to your continued involvement on the Stakeholder Advisory Committee.	M. Robus, Mendenhall Wetlands Study Group
40	1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.	Thank you for your comments. We will make sure CBJ is aware of your comments.	M. Stanley, NDNA
41	2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.	Alternatives that do not meet the purpose and need or that are determined to be infeasible or unreasonable from a cost or construction standpoint cannot be considered as alternatives and it would be inaccurate to present them as possible alternatives that could be implemented. Screening them out is the point of the Level 1 Screening process. However, in the spirit of your comment, we are revising the screening criteria for the Level 2 Screening to include a 5-point scoring system that would provide a more nuanced evaluation of the alternatives for the public and stakeholders to review. Additionally, we have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2.	M. Stanley, NDNA
42	3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.	During Level 2 screening, our design team will be providing more detail on the alignment and circulation that would be included as part of the Salmon Creek alternative.	M. Stanley, NDNA
43	4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.	Thanks for reiterating this point. Please see the response to Comment 32.	M. Stanley, NDNA
44	5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.	Thanks for your comment. Please see our response to Comment 38.	M. Stanley, NDNA

45	6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.	Thanks so much for your comments regarding Hendrickson Point. We will include an evaluation of impacts on this property as part of the Level 2 Screening as you have suggested. We will also document any additional studies that would be needed in this area if one of the alternatives that cross Hendrickson is recommended for continuation into NEPA.	M. Stanley, NDNA
46	The stated project purpose and need statement (Updated November 2022) of the JDNC PEL indicates the purpose of the study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The Project's stated purpose and need statement is not specific to identified traffic concerns. In addition, the Juneau-Douglas Island population growth projections that would contribute to increased traffic have not been realized. At present, it is not clear that the need for the Project has been well substantiated. EPA recommends that the purpose and need more specifically incorporate the problem that would be addressed/solved by completing the project.	The purpose and need statement has been approved by the Statewide Environmental Office and identifies the purpose as being "to identify ways to improve the connection between Douglas Island and Juneau. The secondary purposes are to identify ways to improve transportation for non-motorized users and reduce transportation-related energy consumption." The need is two-fold to create "Alternate access and transportation infrastructure resiliency" and "Decrease traffic pressure on Douglas Island Bridge and its intersections". The traffic portion of the purpose and need is clear that it is related to traffic concerns on the bridge and its intersections. The traffic analysis demonstrates that these intersections operate at a poor level of service during peak periods under existing traffic volumes, and are not reliant on future growth.	B. McCracken, EPA
47	Based on the Appendix; Level 1 Screening Results Overview8 (page 28) under Step 2 Additional Goals, Avoid, minimize, and mitigate impacts to the environment, there are three categories: "high", "medium" and "low". A ranking of "high" means there is a high potential for the alternative to avoid impacts. While it is difficult to directly compare the aquatic resource impacts without knowing the designs of each alternative, the project ranking of "medium" was assigned (pages 29 and 37) to the Salmon Creek alternative. The other six alternatives are ranked as having "low" potential to avoid, minimize and mitigate impacts; with the no-build alternative ranking "high". EPA encourages the Project to consider and fully evaluate the Salmon Creek crossing as being the potential LEDPA alternative, while also meeting the project's stated purpose and need.	Salmon Creek alternative is one of the alternatives moving forward into Level 2 Screening.	B. McCracken, EPA
48	While the TM states that there are challenges tying in with the Egan Drive/Channel Drive Intersection, there is also opportunity to upgrade this Juneau mainland intersection to improve current conditions. As noted in the TM and the North Crossing PEL Study Environmental Setting (ES) document,9 the Salmon Creek Alternative is outside of the Mendenhall Wetlands State Game Refuge, would require the shortest crossing span, impact the least amount of wetlands (ES document, page 80, Figure 14, Wetlands in the Study Area), and least amount of documented Anadromous waters (ES document, Page 87, Figure 16; Anadromous fish habitat within the study area). Based upon information provided thus far, it also appears this alternative may require the least amount of intertidal dredge and fill impacts.	The Salmon Creek alternative is moving forward into Level 2 Screening. We will generate profiles, cross-sections, slope limits, and conceptual designs for the alternatives that are carried forward into Level 2 Screening. At that time we will have a more realistic picture of the design and the impacts that would result from this alternative.	B. McCracken, EPA
49	Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems concerned.	Thank you for the comment. No dredging is anticipated as part of the alternatives, but fill material is a likely consideration and will be evaluated in accordance with state,-federal, and local regulations. Structurally supported alternatives are being considered as a means to reduce fill material in the aquatic ecosystem.	B. McCracken, EPA
50	The draft AK DMEF, User Manual, and Inland Testing Manual include a tiered approach to sediment characterization for dredging projects. More specifically, these guidance documents outline four tiers of evaluation: 1. Site Evaluation and History, 2. Chemical Testing, 3. Biological Testing, and 4. Special Studies. Every dredging project is subject to a Tier 1 evaluation to determine if enough information exists to make a decision on whether dredged sediments will be suitable for open-water disposal. The presence of an adequate baseline is part of this determination. The Tier 1 evaluation may be the only tier required for a suitability determination, or it may inform evaluation by other tiers. The tiered analysis, provides the information needed to make a factual determination as required by the Guidelines.15The need for and extent of the Tier 1 evaluation should be incorporated into the Project, depending on the alternative selected.	Thank you for the comment. We do not anticipate dredging to be part of the alternatives at this time. We will document this guidance and if dredging becomes a future consideration, we will let you know.	B. McCracken, EPA

September 7, 2023

Dear Morgan,

I read in your recent newsletter that DOWL has initiated further environmental analysis to inform the findings of the Level 2 PEL study. The studies were to begin August 30 and end this fall. I have also learned that there may be an Advisory team meeting on September 13. As a member of the Mendenhall Wetlands Study Group, I had not been notified of the meeting. If there is a meeting on September 13, please let me know what is on the agenda.

PEL Study Team: The agenda was sent prior to the meeting.

These new developments in the PEL Level 2 analysis raise several questions that should be on the agenda for the next meeting.

First, was the scope and study design for the four areas of investigation listed in the newsletter reviewed by the Refuge Manager? The study scope and design were not sent to the Mendenhall Wetlands Study Group even though our group includes scientists who have either done, or are very familiar with, topics you are planning to investigate. Do you plan to request input from the MW Study Group? And have you incorporated findings of the many existing studies included in the bibliography of the study recommendations we sent to you on January 30, 2023?

PEL Study Team: Yes, the work plans were sent to the Refuge Manager for review and comment. The work plans were shared with the jurisdictional agencies (regulatory subject matter experts) on 9/8 for review and comment. We are sharing the study plans with the advisory committees at the advisory committee meeting. Our study teams have reviewed existing literature sources, including those sent by MW study group.

Second, it appears your studies will be limited to the footprint of the proposed corridors. If so, they are flawed from the start as each crossing will have greater or lesser impacts on habitats, species and human uses beyond the footprint of the crossing structure. The studies of wetland vegetation and function and wildlife surveys should include the entire wetland area.

PEL Study Team: The studies are to evaluate the potential impacts of each alternative. We have included a 150 ft buffer, 300 total to account for engineering modifications. Indirect impacts will be considered at a very high level for the Level 2 analysis, however indirect and cumulative impacts will be considered, as required, if the project moves forward to a NEPA phase.

Third, all of the crossing options are perpendicular to the tidal flow that creates and nourishes the habitats and species in the wetlands. And all of the crossings have potential to impact freshwater flows into the wetlands. Hydrology of the wetlands should be a focus of the studies. Impacts of crossing structures on tidal and freshwater flows will be a major concern when evaluating the different alternatives.

PEL Study Team: A hydraulic and hydrologic analysis will be conducted at a later time to understand how the proposed alternatives may impact the hydrology of the area. Avoidance and minimization of impacts is a primary consideration and if the project moves forward it will be subject to an alternatives analysis under NEPA and Clean Water Act Section 404(b)(1).Guidelines (40 CFR 230).

Fourth, a fall study of upland and migratory bird use of the wetlands is too narrow a time window to give a full understanding of the use of the wetlands by migratory and resident birds. Again, our January 30, 2023 comments give you available studies documenting the year-round bird use of the wetlands. Have you consulted those in the PEL analysis and in designing your upcoming bird studies?

PEL Study Team: The fall study is what we have time to complete this year. We have consulted a number of studies throughout the PEL process and in the planning of our field studies. If a NEPA phase is undertaken, additional studies would be conducted at different times of the year in order to ensure a comprehensive analysis. Under a NEPA phase, additional studies would focus on alternative(s) advanced for NEPA analysis.

Finally, as we suggested in our January 30, 2023 recommendations, and our March 17, 2023 comments on the PEL Level One report, none of the alternatives that cross the Mendenhall Wetlands State Game Refuge should include a solid fill option. Given the large and unavoidable impacts of a solid fill structure to the hydrology of the wetlands we recommended that only elevated structures be evaluated in the PEL Level Two analysis. Are you still planning to include solid fill structures as options for crossing the State Game Refuge?

PEL Study Team: The study team is still working on engineering analysis to identify what type of structure would be suitable for a proposed north crossing. We do not have an update at this time regarding the selection of a structure type.

These are the primary issues we think need to be discussed at the next session.

Sincerely,

Ron Somerville
Mendenhall Wetlands Study Group

From:	Morgan McCammon
To:	Ronald; PUB-JDNorthCrossing; Theresa Dutchuk
Cc:	Matt Robus; Frank Rue; Alex Wertheimet
Subject:	RE: [EXT] Study Plans
Date:	Monday, September 18, 2023 8:06:38 AM
Attachments:	MW Study Group_2023-09-06 letter to DOT_DOWL.pdf JDNC Bird Survey Work Plan 9-8-2023.pdf JDNC Eelgrass Survey Work Plan 9-8-2023.pdf JDNC Intertidal Work Plan 9-1-2023.pdf JDNC Wetlands Work Plan 9-8-23.pdf

Good morning, Ron, Frank and Alex,

Thank you for your patience and continued involvement in this process. Please see the attached documents:

- Responses to the questions in your letter dated September 6, 2023
- Bird Survey Work Plan
- Eelgrass Survey Work Plan
- Intertidal Habitat Work Plan
- Wetlands Work Plan

Please send any comments as soon as possible. We appreciate your input.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Ronald <[redacted]>
Sent: Friday, September 15, 2023 4:50 PM
To: Morgan McCammon <[redacted]>
Cc: Matt Robus <m[redacted]>; Frank Rue [redacted]>; Alex Wertheimet <[redacted]>
Subject: [EXT] Study Plans

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Morgan,

The Mendenhall Wetlands Study Group requests copies of study plans prepared in order to carry out the wetland and wildlife resource inventories to be conducted for the various North Crossing route alternatives. This request is in relation to the deadline you have set for comments on said plans, which is now three days away, on Monday, September 18th. In order for the MWSG to make substantive comments it is necessary for us to be provided with more detail than the PowerPoint overview given at the recent September 13 meeting.

Presumably, when a Technical Advisory Committee was named for this PEL study it was for the purpose of getting advice from people with competence in subject areas pertinent to the North Crossing project proposal. When the decision was made to abandon the original Level 2 screening process schedule in order to conduct environmental surveys it was an excellent opportunity to seek such input. Instead, we are forced into a compressed timeline and as a TAC member *have not been provided with the documents we are asked to comment on*. For the sake of a fair process and a defensible result to the PEL study we ask that you provide the study plan(s) for our information and review.

If the detailed plans cannot be made available immediately, we would request at least a 2 week extension for the comment period.

Thank you for your consideration.

On behalf of the Mendenhall Wetlands Study Group -

Ron Somerville
Matt Robus
Frank Rue
Alex Wertheimer

From: Winston Smith
To: Morgan McCammon
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committees
Date: Wednesday, September 20, 2023 8:24:24 AM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan:
Thank you for the email and attached documents. My response today is on behalf of the Juneau Audubon Society.

As an experienced wildlife scientist who conducted field ecological research on birds and other wildlife for over 40 years, I am well aware of variability that exists and occurs seasonally and annually. The proposed fieldwork related to the second crossing are woefully inadequate and will simply provide a single, seasonal observation point without appropriate context or other necessary information regarding variety, abundance, frequency, or duration of use by birds and other wildlife species. At a minimum, fieldwork needs to be conducted throughout the year for multiple years, to be determined in part on the variation observed between the initial two years of the study.

SIncerely,
Winston

On Mon, Sep 18, 2023 at 11:07 AM Morgan McCammon <[redacted]> wrote:

> Good afternoon, Juneau Douglas North Crossing Advisory Committee Members,
>
> Thank you for your continued participation in the Juneau Douglas North Crossing PEL Study Advisory Committees. We appreciate the feedback provided on the fieldwork plans and next steps. Please see the attached meeting presentation.
>
> Also attached are the fieldwork plans submitted to agencies with jurisdiction on September 8, 2023. The workplans are still under review with the agencies and are subject to change depending on feedback received. We will be sharing information on the results of the fieldwork following reporting over the winter.
>
> The next Advisory Committee meetings to discuss the draft Level 2 Screening results will be scheduled for late winter or early spring 2024, prior to the third and final public open house. Based on feedback received earlier this year, we plan to hold two meetings presenting the same information: one in-person and one virtual. We will invite members of both Advisory Committees to attend one or the other based on preference. While we plan on sharing screening results, we will provide ample time for group discussions.
>
> Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From:	Peggy and Alex
To:	Morgan McCammon
Cc:	Matt Robus; Ronald; Frank Rue
Subject:	[EXT] JDNC Work Plans
Date:	Friday, September 22, 2023 4:30:25 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Morgan:
At the September 13, 2023, meeting DOWL held with the Technical Advisory Committee (TAC), we were informed that DOWL had formulated and was implementing Work Plans to evaluate the impacts of the various alternatives in relation to birds, eel grass, intertidal habitat, and wetlands habitat. We were told we had until September 18 to comment on theWork Plans. However, we did not receive copies of the Work Plans until September 18, the stated due date for comments and revisions. This is not an appropriate way to communicate with an Advisory Committee that is supposed to provide constructive input to the analysis and evaluation of second crossing options. As a result, the Mendenhall Wetlands Study Group (MWSG) is relegated to being critics of the plans rather than contributing to improved methodology and data collection. It is obviously too late for detailed comments of field methodology. However, despite the very limited time you have provided, the MWSG has read through the Work Plans and we have some general comments on the on-going field work.

Study area(s): All of the studies contained in the work plans focus on only the footprint of the various alternatives and a small additional buffer either side of the alignments. This is undoubtedly a cost saving measure, but has the substantial flaw of ignoring the rest of the wetland area in which the alternatives sit and makes it impossible to evaluate route alternatives in the context of surrounding ecological values. A single narrow transect is likely to underestimate the values of a larger area - that's why sampling procedures require multiple transects or other sampling schemes to accurately depict the values exhibited by a larger piece of habitat. All of the alternatives are perpendicular to the tidal flow that creates and nourishes the habitats and species in the wetlands, and all of the crossings have potential to impact freshwater flows into the wetlands. Hydrology of the wetlands should be a focus of the studies, not an issue to be considered later. Impacts of crossing structures on tidal and freshwater flows will be a major concern when evaluating the different alternatives, and when evaluating the construction options for each particular alternative.

Timing: Evidence shows that most southward migration of birds through the Mendenhall Wetlands have occurred by mid-September, so a one-time survey late in the month has little value for depicting use of the Mendenhall Wetlands by bird species. Such studies should be conducted across one or more entire years, and should encompass the entire Mendenhall Wetlands rather than only individual route alternative transects.

References: It is essential that PEL's studies incorporate all available knowledge of the study areas, and that the most recent information be included. Two critical references in regard to bird use of the refuge that are not cited are:

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

The MWSG previously submitted these and a number of other references to the PEL process on January 30, so they should be readily available to your contractors.

We look forward to seeing the results of the field work. We ask that the TAC be provided draft copies of the Work Plan reports with sufficient time to meaningfully comment on the analysis and interpretation.

On behalf of the MWSG-

Ron Somerville

Matt Robus

Frank Rue

Alex Wertheimer

From:	Morgan McCammon
To:	Michael Stanley
Cc:	PUB-JDNorthCrossing
Subject:	FW: [EXT] Salmon Creek Intersection Aerial
Date:	Friday, September 29, 2023 1:23:09 PM
Attachments:	Salmon Creek Aerial intersection_2023_0926.pdf Salmon Creek Aerial zoomed out_2023_0926.pdf

Good afternoon, Mike,

Steve requested that I follow up with you regarding an aerial of the intersection for you to mark up. We appreciate your time in developing this idea. Please let me know if you would like to arrange to pick up printed copies.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Michael Stanley <[redacted]
Sent: Friday, September 15, 2023 1:25:15 PM
To: Steven Noble <[redacted]>
Subject: [EXT] Salmon Creek Intersection Aerial

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Steve,

Further to our phone call, it would assist me to rough out a sketch of the idea I floated at the end of the PEL stakeholder advisory committee meeting on Wednesday, regarding a crossing at the Salmon Creek intersection, if I had an aerial drawing or photograph of the intersection that I could mark up. You said that your staff should be able to locate something along these lines, which they could send. If what they find is larger than can reasonably be made into a pdf and e-mailed, I would be happy to stop by DOWL's office in the valley to pick it up. There's no hurry on my part; I'll be out-of-town Sept. 18-25, and likely would not be able to work on this until sometime in early October. Thank you, and feel free to call me if you have any questions about this. My mobile # is [redacted]

Mike Stanley





From: Steven Noble
To: Michael Stanley; Morgan McCammon
Subject: Re: [EXT] Salmon Creek Schematics
Date: Wednesday, October 4, 2023 3:56:42 PM

Michael

Thanks so much for giving us your ideas at this intersection. I appreciate it. We will compare it to some of the ideas that our team has been coming up with him see if it spurs any new concepts.

Steve

Steve Noble PE
DOWL

From: Michael Stanley [redacted]>
Sent: Wednesday, October 4, 2023 2:21:58 PM
To: Morgan McCammon <m[redacted]@dowl.com>; Steven Noble [redacted]
Subject: [EXT] Salmon Creek Schematics

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Morgan and Steve,

Attached are a couple of schematics for the idea I mentioned about an overpass that would cross above Egan Drive from the hospital entrance, then across the DOT parking lot, and then across Gastineau Channel. (Where the crossing would land on the island side is a separate issue.) One is from a copy of the aerial photo you provided; the other is a photo I took at ground level at the turn-off into the Salmon Creek powerhouse. These are very rough but I hope you get the concept. The idea occurred to me as I was thinking about your comments regarding the difficulty of tying a crossing directly into the Salmon Creek intersection. An overpass that started at the elevation of the hospital entrance road, and then went directly across, would seem to avoid many of the problems you identified: the crossing would be high enough to avoid interfering with barge traffic; overpass abutments could be located near the hospital drive entrance and in the DOT parking lot, which I presume would avoid the need for taking any private property or buildings; and such a crossing would be entirely outside the Mendenhall Wetlands State Game Refuge and the habitat at the mouth of Salmon Creek. And I see other possible advantages: much better access to the hospital from Egan northbound, directly up an exit ramp, and a straight shot for traffic coming from North Douglas directly into the hospital, without having to negotiate the intersection light and multiple turns. The trickiest parts of this idea are the on and off ramps. An exit ramp southbound on Egan up to the overpass, just past the light, could compromise the merge lane bearing south out of Channel Drive; an entrance ramp down from the hospital entrance back to Egan would have to tie in somehow, while still leaving a way to turn right off Egan at the light; and a ramp down from the overpass for traffic coming south from North Douglas would also have to tie back into Egan. I assume, however, that traffic/highway engineers (which I am definitely not!) could wrestle with these issues. Whether this concept has any merit I will leave to you and DOT to judge, but I at least

wanted to convey the idea for your review.

One caveat: although I represent North Douglas Neighborhood Association on the PEL stakeholder advisory committee, this idea is mine alone and should not be considered the position of our Second Crossing Committee. Thank you.

Mike Stanley



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104 | P 206.394.3700

TECHNICAL MEMORANDUM

DATE:	September 8, 2023
TO:	Ben Storey, Regional Environmental Manager, AK DOT&PF Southcoast Region
FROM:	Kaylee Moser and Mike Hall, Parametrix
SUBJECT:	Draft Bird Survey Work Plan
CC:	Christy Gentemann, Environmental Impact Analyst, AK DOT&PF Southcoast Region
	Theresa Dutchuk, Senior NEPA Specialist, DOWL
PROJECT NAME:	Juneau Douglas North Crossing (JDNC)

INTRODUCTION

The City and Borough of Juneau (CBJ) has partnered with Alaska Department of Transportation and Public Facilities (DOT&PF) to explore a north crossing between Juneau and Douglas Island, north of the existing Douglas Island Bridge. DOT&PF has chosen the Planning and Environmental Linkage (PEL) process to evaluate the purpose and need for a north crossing, identify potential north crossing alternatives, evaluate the alternatives, and identify recommended crossing(s). In support of the evaluation of alternatives the project team is collecting environmental data to understand potential impacts of six proposed alternatives. This work plan has been developed to outline the goals, objectives, and methods for field surveys to document habitat use by birds during the fall migration period.

GOALS AND OBJECTIVES

The goals of this effort are to document bird species present in the study area during the fall migration period and to identify differences in bird use of the habitat types that have been identified in the study area. Information collected through this effort will be used to evaluate the potential impacts of the alternatives on birds and bird habitat.

To accomplish these goals, we propose to

- Collect observations of the structural and vegetative composition of the land cover types that were defined and mapped in the Wildlife and Fish Resources Technical Memorandum for the Juneau Douglas North Crossing PEL Study and
- Conduct point-transect surveys to document bird species detected and to characterize the interactions of birds with different habitat types.

METHODOLOGY

Preliminary Research: Before beginning fieldwork, biologists will review available aerial photos, bird species lists, and observation records from multiple resources, including:

- Wildlife and Fish Resources Technical Memorandum for the Juneau Douglas North Crossing PEL Study (Parametrix 2022)
- Juneau Audubon Society (http://www.juneau-audubon-society.org/)
- Alaska Audubon Society (https://ak.audubon.org/southeast-alaska-birding-trail/juneau)

- eBird (https://ebird.org/hotspots)
- Alaska Department of Fish and Game (https://www.adfg.alaska.gov/index.cfm?adfg=animals.listbirds)
- *The Mendenhall Wetlands: A Globally Recognized Important Bird Area* (Armstrong et al. 2009)
- Google Earth images
- Other relevant reports (e.g., FAA and CBJ 2007).

Study Area: The study area for habitat evaluations and bird surveys will consist of the PEL study area, as identified in Wildlife and Fish Resources Technical Memorandum (Parametrix 2022). Biologists identified 10 preliminary routes for point-transect surveys. Transect locations were based on proximity to the proposed alternatives, proximity to identified birding hotspots, access, and inclusion of representative data on identified habitat types (see Attachment A). The transects vary in length from 0.1 mile to 1.0 mile.

Equipment: Biologists will use a Trimble DA2 Catalyst Global Navigation Satellite System Global Positioning System (GPS) receiver with submeter accuracy, accompanied by a tablet computer with the ArcGIS Field Map application containing the base condition mapping layers.

Habitat Evaluations: Biologists will collect data to describe the characteristics of each land cover type. Observations of birds in these cover types will be used to identify the associations of birds with each habitat type. Data collected in each land cover type will include plant species, stand structure, habitat quality, and land use. While collecting habitat evaluation data, biologists will confirm and, as needed, correct assigned cover type classifications and boundaries. Corrections to the boundaries and cover type designations will be made in ArcGIS Field Maps. Biologists will also record incidental observations of non-avian taxa and evidence of their presence (e.g., tracks and scat).

Point-Transect Surveys: Two biologists will conduct point-transect bird surveys in mid-to-late September. Point-transect surveys will be performed by walking along the transects and stopping at various points to observe bird activity. A single, 1- to 2-hour survey visit will be conducted along each transect. For each detection, biologists will record the species, detection type (auditory vs. visual), habitat type, whether bird is using habitat or is simply flying over.

Biologists aim to survey 2 or 3 transects per day, weather permitting, and will target surveys around dawn and dusk. In accordance with methodologies developed for bird surveys during migratory periods (e.g., Alberta Environment and Parks 2020), surveys will be conducted during the morning and the evening. Morning surveys begin around sunrise and will continue for 3 to 4 hours. Evening surveys will be conducted during the 3- to 4-hour period leading up to sunset. This approach will allow biologists to collect data on a wider array of species than would be present during just one of these time periods, as different species are active at different times of the day. The morning surveys may capture nocturnal migrants landing after nighttime flights and diurnal migrants beginning migration in the daylight hours. The evening surveys may capture soaring migrants using thermals, waterfowl during foraging flights, and nocturnal migrants beginning nighttime flights (Alberta Environment and Park 2020). Surveys will not be conducted during periods of strong wind or heavy rain.

Table 1 on the following page provides details for each transect. Access to at least four of the transects will depend on tidal conditions. Biologists will review tide charts before conducting surveys and plan appropriately.

BACKGROUND INFORMATION

Survey data collected during late September offers a snapshot of the activity of resident bird species and species that use the study area as a migratory corridor. The fall migration period in Juneau extends from August 1 through November 30 (Juneau Audubon Society 2004). A study using weather surveillance radar data at seven Alaska stations from 1995 to 2018 found higher peak migratory intensity in autumn than in spring. Data from the closest station in Sitka identified September 11 as the peak autumn migration date (Sivakumar et al. 2021). A list of bird species expected to be observed in September will be compiled before bird surveys begin, using the resources identified above.

Table 1. JDNC Bird Survey Point-Transect Information

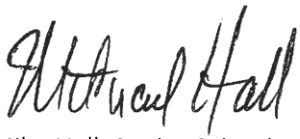
Transect ID	Transect Length (miles)	Habitat Types Encountered[1]	Access to Transect	Tide Dependency
T1	0.4	Coniferous Forest, Coastal Meadow, Unvegetated Intertidal, Open Water	Follow Mendenhall Peninsula Trail	No
T2	0.2	Coniferous Forest, Intertidal Marsh, Unvegetated Intertidal, Open Water	Park at North Douglas Boat Launch Ramp and walk east	No
T3	0.7	Coniferous Forest, Freshwater Emergent Wetland, Coastal Meadow, Intertidal Marsh, Unvegetated Intertidal, Open Water	Follow the Fish Creek Trail	No
T4	1.0	Freshwater Emergent Wetland, Intertidal Marsh, Open Water	Follow the Mendenhall Refuge Trail	No
T5	0.2	Freshwater Emergent Wetland, Coastal Meadow, Intertidal Marsh, Unvegetated Intertidal	Park at the western end of Sunny Drive and walk southwest	Yes- Survey closer to low tide
T6	0.3	Coniferous Forest, Forested Wetland, Scrub-Shrub wetland, Freshwater Emergent Wetland	*Access still TBD. Possibly walk through City and Borough of Juneau Lands and Resources parcels 6D0901060110 and 6D0901070050	No
T7	0.2	Coastal Meadow, Unvegetated Intertidal, Open Water	Park at the Mendenhall Wetland Scenic View pull out and walk southeast towards Lemon Creek.	Yes- Survey closer to low tide
T8	0.1	Intertidal Marsh, Unvegetated Intertidal, Open Water	Park at pullout along North Douglas Highway, walk through City and Borough of Juneau Lands and Resources parcels 6D0901000090 and 6D0901000080	Yes- Survey closer to low tide
T9	0.3	Coastal Meadow, Unvegetated Intertidal, Open Water	Follow the Twin Lakes Trail	No
T10	0.3	Coastal Meadow, Unvegetated Intertidal, Open Water	Walk along the Salmon Creek outlet	Yes- Survey closer to low tide

[1] See the JDNC PEL Wildlife and Fish Technical Memorandum for habitat type descriptions.

If you have any questions, we are available to discuss.



Kaylee Moser, Biologist
[redacted]



Mike Hall, Senior Scientist
[redacted]

REFERENCES:

Alaska Audubon Society. 2023. Southeast Alaska Birding Trail—Juneau Trails Bird Species Checklists. Available at: https://ak.audubon.org/southeast-alaska-birding-trail/juneau

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AUKE BAY
COGHLAN ISLAND
SPUHN ISLAND
FRITZ COVE
DOUGLAS ISLAND
JUNEAU
GLACIER HIGHWAY
JUNEAU INT'L AIRPORT
EGAN DRIVE
DOUGLAS HIGHWAY
GASTINEAU CHANNEL
Airport Dike Trail
Mendenhall Peninsula
Fish Creek Delta
Twin Lakes
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10

ALTERNATIVES
- Mendenhall Peninsula
- Sunny Point West
- Sunny Point East
- Vanderbilt
- Twin Lakes
- Salmon Creek

BIRD SURVEY POINT-TRANSECTS

HABITAT TYPES[1]
- Unvegetated Intertidal
- Intertidal Marsh
- Freshwater Emergent Wetland
- Scrub-Shrub Wetland
- Forested Wetland
- Coastal Meadow
- Coniferous Forest
- Open Water
- Disturbed
- eBird Hotspots

Feet
0 2,000 4,000

Sources:
1: HABITAT TYPES IS MADE UP OF THE FOLLOWING DATASETS: FWS NATIONAL WETLAND INVENTORY, USFS TONGASS NATIONAL FOREST COVER TYPE MAPPING

BIRD SURVEY POINT-TRANSECTS AND HABITAT TYPES

SEC 25 - 27, 34 - 36, T 40S, R 65E; SEC 30 - 34, T 40S, R 66E
SEC 1 - 12, 15 - 17, T 41S, R 66E;
SEC 4 - 10, 15 - 17, 21 - 23, 27 T 41S, R 67E

COPPER RIVER MERIDIAN, ALASKA

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DOT&PF PROJECT NO. SFHWY00299/0003259
JUNEAU DOUGLAS SECOND CROSSING PEL STUDY

CITY AND BOROUGH OF JUNEAU, ALASKA

AUGUST 30, 2023 | FIGURE 1

Imagery Credits: Community No Labels: State of Alaska, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCan, Parks Canada

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Parametrix
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719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104 | P 206.394.3700

TECHNICAL MEMORANDUM

DATE:	September 1, 2023
TO:	Ben Storey, Regional Environmental Manager, AK DOT&PF Southcoast Region
FROM:	Tad Schwager, Senior Scientist, Parametrix
SUBJECT:	Draft Intertidal Habitat Survey Work Plan
CC:	Christy Gentemann, Environmental Impact Analyst, AK DOT&PF Southcoast Region Theresa Dutchuk, Senior NEPA Specialist, DOWL
PROJECT NUMBER:	SFHWY00299 / 0003259
PROJECT NAME:	Juneau Douglas North Crossing

INTRODUCTION

The City and Borough of Juneau (CBJ) has partnered with Alaska Department of Transportation and Public Facilities (DOT&PF) to explore a north crossing between Juneau and Douglas Island, north of the existing Douglas Island Bridge. DOT&PF has chosen the Planning and Environmental Linkage (PEL) process to evaluate the purpose and need for a north crossing, identify potential north crossing alternatives, evaluate the alternatives, and identify recommended crossing(s). In support of the evaluation of alternatives the project team is collecting environmental data to understand potential impacts of six proposed alternatives. This work plan has been developed to outline the goals, objectives, and methods of the intertidal habitat surveys.

GOALS AND OBJECTIVES

The goal of this task is to develop a detailed base map that can be used to evaluate the potential impacts of the alternatives on intertidal habitats. The construction footprint, as defined by the selected alignment and construction method, will be overlaid on the intertidal habitat base map to calculate the area of each habitat type that may be affected.

To accomplish this goal, we propose to

- Prepare a preliminary base map of intertidal habitats, using existing data, and then
- Perform habitat surveys in the intertidal zone of the study area to ground-truth and refine the base map.

METHODOLOGY

Before beginning fieldwork, biologists will review available aerial photos, topographic data, maps of vegetation types, and species data from multiple resources, including:

- Google Earth images
- Multispectral Landsat Imaging
    - https://earthexplorer.usgs.gov/
- USGS Topographic Data
    - https://apps.nationalmap.gov/viewer/
- The Alaska ShoreZone mapping system
    - https://alaskafisheries.noaa.gov/mapping/sz/

- USFWS National Wetlands Inventory
  - https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
- Maps and documents developed for the Juneau Douglas North Crossing PEL study, as well as other relevant reports (e.g., FAA and CBJ 2007).

Pertinent data from these resources will be incorporated into a geographic information system and used to develop a preliminary map of intertidal habitat types. Data will be accessible in an ESRI ArcGIS Online webmap developed for the project.

Preliminary habitat type classifications for this study have been developed based on the existing national schema (Cowardin et al. 1979) as well as locally developed habitat categories (FAA and CBJ 2007). A crosswalk of these classifications is provided in Table 1. Modification and refinement of these classifications may be necessary based on observed field conditions.

Table 1. Preliminary intertidal habitat type definitions and comparison to other classification systems

Habitat Type	NWI[1] (Cowardin et al. 1979)	Juneau Airport EIS (FAA & CBJ 2007, Table 3-29)	Description
Sub-tidal	M1, E1, R1	Open Water	Areas that remain inundated at extreme low tides (approximately -4 feet relative to mean lower low water [MLLW]). Submerged aquatic vegetation may or may not be present.
Lower intertidal mudflat	E2 AB/SB/US	Unvegetated	Areas exposed at low tide that are unvegetated. May include sand, algal mats, and sparse vegetation.
Lower intertidal emergent marsh	E2 EM	Low Marsh	Areas exposed at low tide that are vegetated. May include Pacific alkali grass, goosetongue, and Lyngbye sedge communities.
Intertidal rocky	E2 RS, M2 RS	N/A	Areas of rocky or hard substrate anywhere within the intertidal zone.
Upper intertidal natural	E2 SS/FO	High Marsh, Supratidal, Shrub-scrub, Forest	Areas in the upper portion of the intertidal zone that have established vegetation communities. May include beach rye, coastal grass meadow, coastal forb meadow, reed canary grass, deciduous shrub-scrub, deciduous forest, mixed woodland, spruce forest.
Upper intertidal developed	Special modifiers r,s,e	Disturbed, Seeded Grassland	Areas in the upper portion of the intertidal zone that have been modified from the natural state. May include human-created grassy areas, spoils, roadways, etc.

[1] See Attachment D

The survey area is defined as all intertidal areas within 150 feet from the edge of proposed cut/fill lines for each alternative. Access to the survey area will be on foot from the nearest vehicle-accessible location. Surveys will be planned for when low tides (ideally when water levels are predicted to be less than -1 ft MLLW) occur during daylight hours. Specifically, the period of September 28 through October 1, 2023, is targeted based on predicted tides and sunrise/sunset information (NOAA tide station 9452210, Juneau, AK).

Fieldwork will consist of walking the accessible portions of intertidal areas within the identified study areas and ground-truthing the preliminary field maps with a Trimble DA2 Catalyst Global Navigation Satellite System GPS receiver with submeter accuracy and iPad controller running an ArcGIS Field Map application. If the preliminary map appears outdated or otherwise inaccurate compared to existing conditions, biologists will delineate the boundaries of defined habitat types and upload data to the webmap. Observations of relative tide level, submerged aquatic vegetation (SAV) communities, plant species, sediment grain sizes, visible benthic infauna, wildlife use, and other habitat features will be documented with notes and photographs.

A project specific health and safety plan (HASP) will be developed prior to beginning field work. Surveyors will not attempt to walk in unconsolidated mud or water deeper than 1 foot; as such, surveys will be limited by tide levels at the time of surveys. If necessary, surveyors will carry "mudder" boots and personal flotation devices for safety in soft sediment areas.

BACKGROUND INFORMATION

A variety of information sources were used to develop this work plan. The ArcGIS Online map developed to illustrate existing data sources is portrayed in Attachment A, showing the NWI data available for the area. Additional data "layers" are available in this interactive webmap interface to assist with planning. The vertical datum for Juneau, with comparison of tidal elevations relative to MLLW and NAVD88, is provided in Attachment B. This information can be useful for understanding the full range of tide heights and interpreting inundation frequency based on topographic data. Tide predictions for Juneau during the targeted work window are provided in Attachment C. Tidal patterns in relation to sunrise/sunset times are critical for planning optimal survey times when the intertidal zone will be visible. Finally, the Cowardin et al. (1979) wetland classification system is summarized by the chart in Attachment D. These categories form the basis for defining intertidal habitat types for this survey.

Should any questions or concerns arise in regard to this intertidal work, I am available to discuss.



Tad Schwager, Senior Scientist

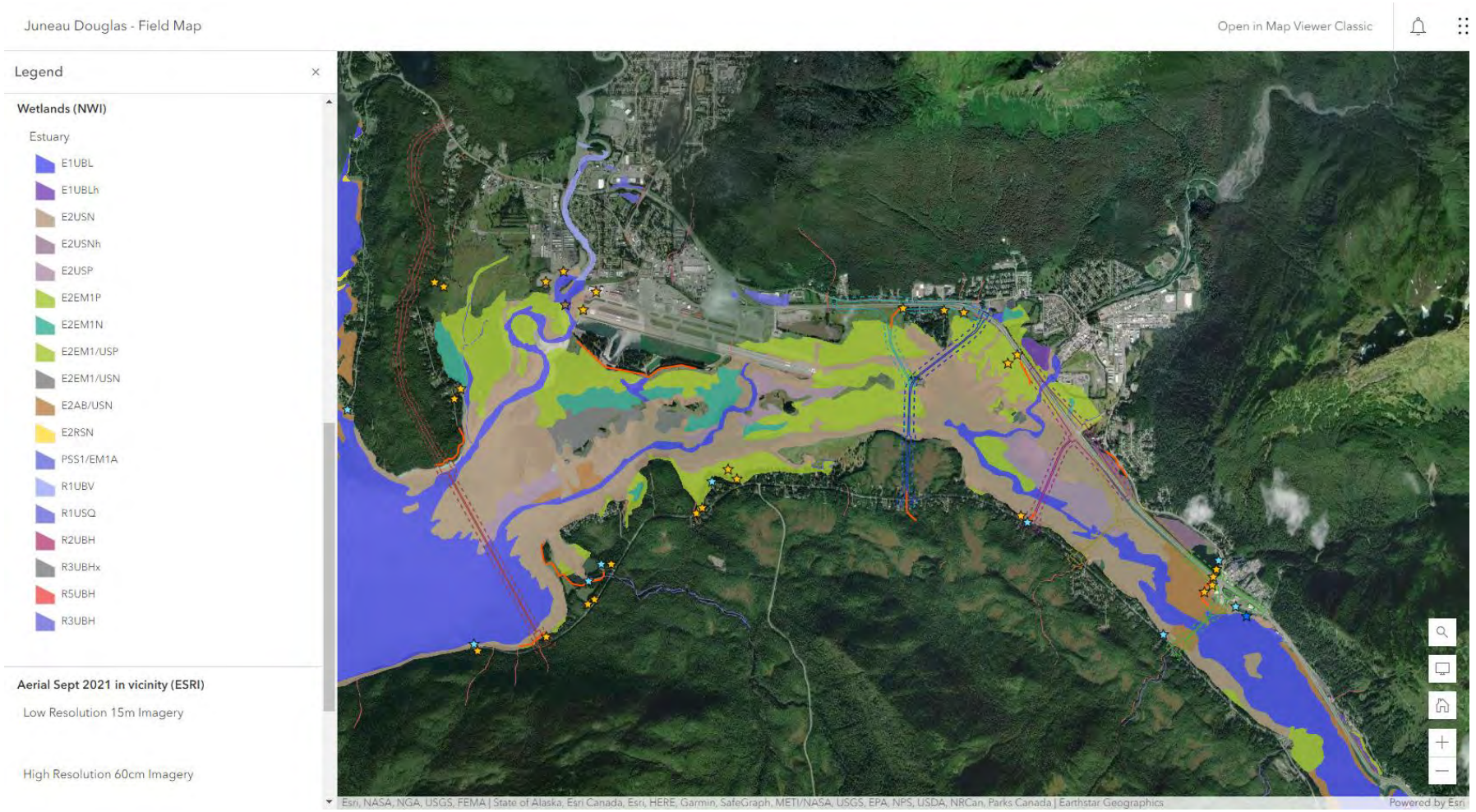
[redacted]

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Attachment A – Example map with intertidal/wetland habitat types, potential alignments, and a 150 ft buffer around each alignment, access points.



Attachment B - Vertical datum for Juneau, AK

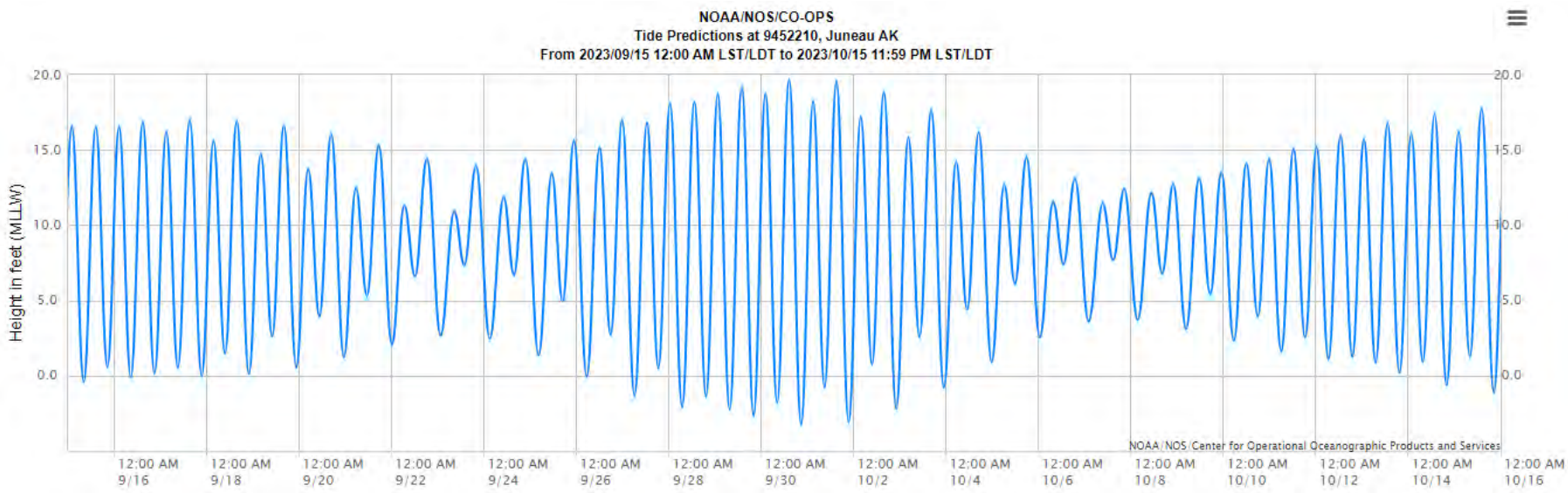
Elevations on Mean Lower Low Water

Station: 9452210, Juneau, AK
Status: Accepted (Feb 6 2018)
Units: Feet
Control Station:

T.M.: 0
Epoch: 2012-2016
Datum: MLLW

Datum	Value	Description
MHHW	16.30	Mean Higher-High Water
MHW	15.34	Mean High Water
MTL	8.47	Mean Tide Level
MSL	8.58	Mean Sea Level
DTL	8.21	Mean Diurnal Tide Level
MLW	1.60	Mean Low Water
MLLW	0.00	Mean Lower-Low Water
NAVD88		
STND	-3.15	Station Datum
GT	16.31	Great Diurnal Range
MN	13.74	Mean Range of Tide
DHQ	0.97	Mean Diurnal High Water Inequality
DLQ	1.60	Mean Diurnal Low Water Inequality
HWI	9.78	Greenwich High Water Interval (in hours)
LWI	3.51	Greenwich Low Water Interval (in hours)
Max Tide	25.05	Highest Observed Tide
Max Tide Date & Time	11/02/1948 23:18	Highest Observed Tide Date & Time
Min Tide	-5.66	Lowest Observed Tide
Min Tide Date & Time	12/14/2008 04:36	Lowest Observed Tide Date & Time
HAT	20.65	Highest Astronomical Tide
HAT Date & Time	11/15/2016 22:06	HAT Date and Time
LAT	-4.88	Lowest Astronomical Tide
LAT Date & Time	06/07/2035 16:48	LAT Date and Time

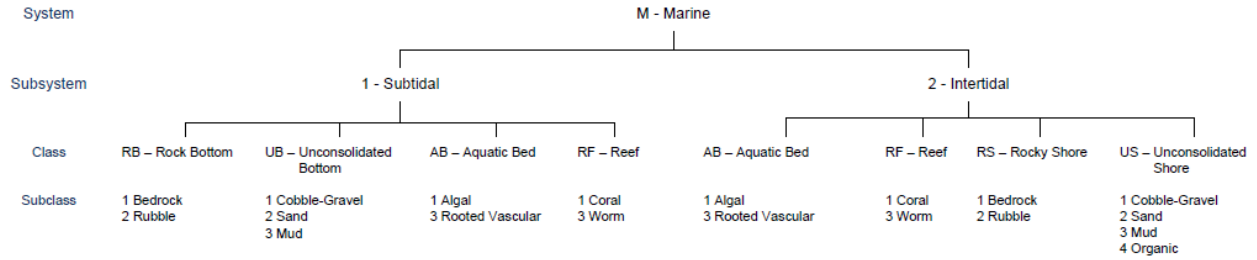
Attachment C - Tide Predictions for Juneau

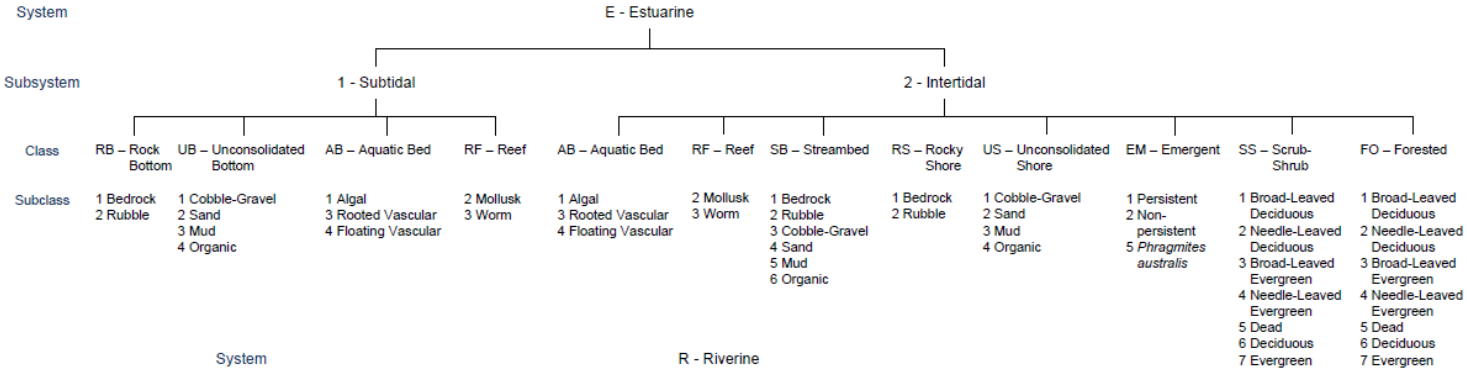


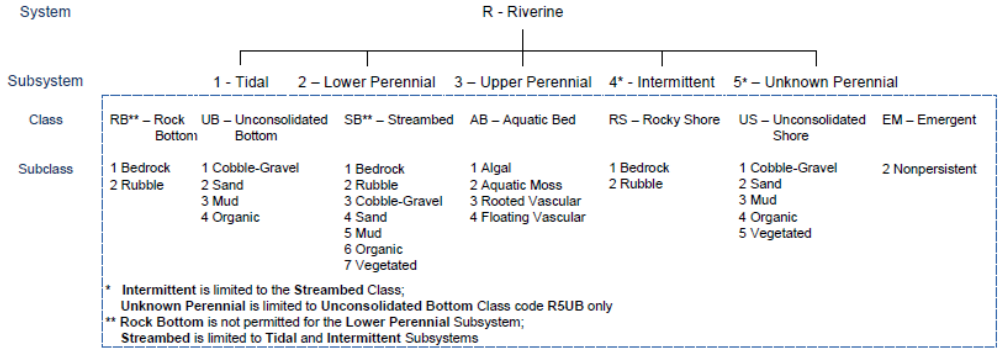
Date	Sunrise	Sunset	Daytime Low Tide	Water Level (ft MLLW)
9/27/23	06:53	18:42	06:09	-1.50
9/28/23	06:55	18:39	06:52	-2.17
9/29/23	06:57	18:37	07:32	-2.26
9/30/23	06:59	18:34	08:11	-1.77
10/1/23	07:02	18:31	08:49	-0.74
10/2/23	07:04	18:28	09:27	0.68

Attachment D – Cowardin classification system

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION





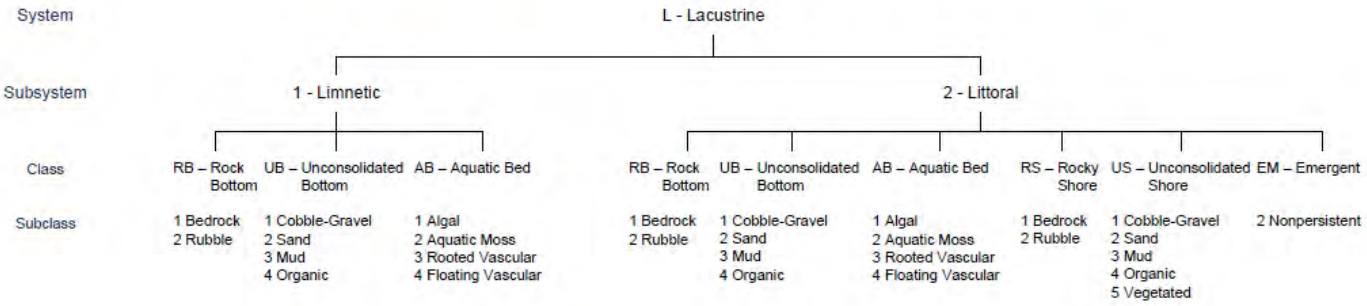


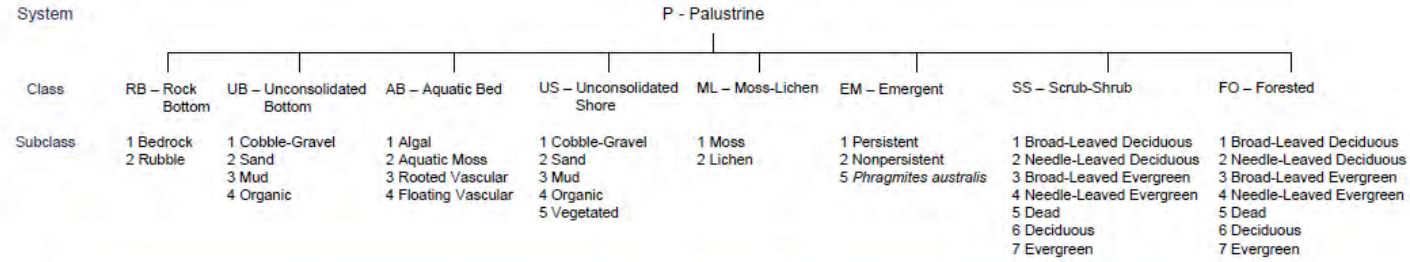
Page 1 of 2

Classification of Wetlands and Deepwater Habitats of the United States, Cowardin *et al.* 1979

February, 2011

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION





MODIFIERS

In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

Water Regime			Special Modifiers	Water Chemistry			Soil
Nontidal	Saltwater Tidal	Freshwater Tidal		Coastal Halinity	Inland Salinity	pH Modifiers for all Fresh Water	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixosaline	i Alkaline	
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
F Semipermanently Flooded			r Artificial	5 Mesohaline			
G Intermittently Exposed			s Spoil	6 Oligohaline			
H Permanently Flooded			x Excavated	0 Fresh			
J Intermittently Flooded							
K Artificially Flooded							

Page 2 of 2

	Criteria	Measurement	No Build	Mendenhall Peninsula	Sunny Point West	Sunny Point East	Vanderbilt	Twin Lakes	Salmon Creek
Natural Environment	Wetlands directly affected	Acreage impacted by construction	0	5.4	7.2	1.3	6.4	1.7	0.9
	Intertidal zone directly affected	Acreage impacted by construction	0.0	7.5	2.5	2.2	27.7	35.9	4.3
	Stream and riparian habitat directly affected	Acreage of impacted streams (including buffer)	0.0	0.1	0.2	0.1	2.3	0	0.3
	Essential fish habitat (EFH) directly affected	Direct impact	0.0	4.7	1.4	1.2	42	45	8.2
	Wildlife habitat directly affected	Acreage impacted by construction	0.0	44.3	13.1	2.2	21.5	8.1	3.1
	Anadromous streams impacted	Number of streams	0.0	1	8	4	3	0	1
	T&E habitat directly affected	Acreage OR distance to habitat	0.0	0	0	0	0	0	0
	Important migratory bird habitat impacted	Number of nesting locations within 500'	0.0	0	24.7	0	4.5	6.4	7
	Eagle nesting trees directly affected	Number of historic nesting locations within 660'	0.0	5	2	1	0	1	1
	Contaminated sites directly affected	Number of sites	0.0	0	0	0	0	0	0
	Section 4(f) / 6(f) resources affected	Number of resources	0.0	3	1	1	2	1	1
	Protected lands directly affected through SEALT	Acreage impacted by construction	0.0	0	0	0.006	0	0	0
	Impervious surfaces added	Area of added impervious surfaces	0.0	52.8	32.2	7.9	37.9	39.9	9.8
Social	EJ community, school, or community gathering space directly affected	Number AND distance	0	0	0	0	1 (Water access)	0	1 (Private Dock)
	Neighborhood divided or otherwise disrupted	Number of neighborhoods	0	0	3	2	1	2	1
	Distance to a native allotment	Distance	0	1.3	1.7	1.8	2.7	2.7	2
Housing	Residential uses directly affected	Estimated number	0	1	2	2	6	0	7
	Within 100 ft of residential property	Estimated number	0	7	48	15	18	5	16
	Acres of vacant residential land directly affected	Acreage of developable land acquired	0	23.6	5.1	5.1	6.3	0	0.8
Economic	Commercial uses directly affected	Estimated number	0	1	0	0	0	2	9
	Within 100 ft of commercial uses	Estimated number	0	0	2	2	0	1	16
	Acres of vacant commercial land directly affected	Acreage of developable land acquired	0	0	0	0	0	1.8	0.6
Safety	Improves safety for all users	Number of conflict points between users	33	20	17	18	13	15	27
Cost	Estimated total construction cost	Estimated cost	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	Estimated annual maintenance cost	Estimated cost	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Right of Way (ROW)	Total ROW needed	Acres and number of parcels (full and partial)	0	50.8 (8)	9.2 (4)	5.1 (2)	13.3 (11)	1.8 (1)	4.3 (18)
	Residential property acquisition	Acres and number of parcels	0	0.6 (1)	5.1 (2)	5.1 (2)	6.5 (6)	0.0 (0)	1.3 (7)
	Commercial property acquisition	Acres and number of parcels	0	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	1.8 (1)	1.1 (8)
Public Support	Level of public support	Comments received	30.53%	321	494	494	361	133	73

Level 2 Screening Results Overview

	Criteria	Measure	No Build	Mendenhall Peninsula	Sunny Point West	Sunny Point East	Vanderbilt	Twin Lakes	Salmon Creek
1. Purpose and Need									
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	-2	2	2	2	2	2	1
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	-2	1	2	2	2	2	2
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	-2	1	1	1	1	1	1
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	-2	1	1	1	1	1	1
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	-2	2	2	2	2	2	2
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	2	2	2	2	2	2
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	1	2	2	2	1	1
2. Additional Goals									
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	-2	1	2	2	2	1	1
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	-2	1	2	2	2	2	2
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-2	-2	-2	-2	-2	-2
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-1	-1	-1	-2	0	-2
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-2	-1	-1	-1	-1	-1
OTHER CONSIDERATIONS									
1. Environmental Screening									
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	-2	-2	-1	-2	-1	-1
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	0	-1	-1	-1	-2	-2	-1
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	0	-1	-1	-1	-2	0	-1
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	0	-1	0	0	-2	-2	-1
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	0	-2	-1	0	-2	-1	0
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	0	-2	-1	-1	0	0
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	0	0	0	0	0	0
	Important migratory bird habitat impacted	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	0	0	-2	0	-1	-1	-1
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	0	-2	-1	-1	0	-1	-1
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	0	0	0	0	0	0
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	0	-2	-1	-1	-1	-1	-1
	Protected lands directly affected	Scale from 0 (no minimal impacts) to -2 (high number of acres of protected lands impacted)	0	0	0	-2	0	0	0
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	0	-2	-2	-1	-2	-2	-1
Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0	0	0	0	-1	0	-1
	Neighborhood divided or otherwise disrupted	Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	0	0	-2	-2	-1	-2	-1
	Distance to Native Allotment	Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	0	0	0	0	0	0
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	0	0	-1	-1	-2	0	-2
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	0	0	-2	-1	-1	0	-1
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	-2	-1	-1	-1	0	-1
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	-2	0	0	0	-1	-2
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	0	0	-1	-1	0	-1	-2
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	0	0	0	0	-2	-1
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	0	0	1	1	2	1	0
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	-2	1	0	2	2	1
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	-2	1	1	2	2	2
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	-2	-1	-1	-2	0	-1
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	0	-2	-2	-2	0	-1
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	0	0	0	0	-1	-1
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	0	1	2	2	2	0	0
Score/Result									
			-18	**-15**	**-6**	**-2**	**-6**	**-2**	**-11**

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

OFFICE OF THE COMMISSIONER
Headquarters Office

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.6136
Fax: 907.465.2332

TO: Greg Lockwood, Engineer/Architect
Dept. of Transportation and Public Facilities

DATE: April 11, 2024

FILE: Gastineau Channel Bridge: DOT Second Crossing

SUBJECT: Juneau-Douglas Second Crossing
PEL Draft Level 2 Screening
Project No. SFHWY00299

FROM: Benjamin Mulligan
Deputy Commissioner

PHONE NO: (907) 267-2190

Alaska Department of Fish and Game (ADF&G) has reviewed the Draft Level 2 Scoring Table 2-29-24 and Draft Level 2 Impact Table 3-1-24 for the Juneau-Douglas second crossing Preliminary Environmental Linkages (PEL) study. The proposed Level 2 scoring process ranks crossing alternatives based on the sum of scores assigned to each criterion, which appears incomplete and lacks definitions to support assigned scores. Our comments below are on the scoring system and sectioned into the overall scoring system, environmental scoring, Section 4(f)/(6) resources, and general comments per the screening considerations.

Overall Scoring System

The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.

The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between 0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.

We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.

Environmental Scoring

For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).

Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for 'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.

Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.

Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.

Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.

The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km.[1]

Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.[2]

Section 4(f)/6(f) Resources

The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting,

[1] Goodship, N.M. and R.W. Furness. (MacArthur Green). 2002. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

[2] Flynn Casey, Habitat Biologist, to Kate Kanouse, Southeast Regional Supervisor, Alaska Department of Fish and Game, Habitat Section. Memo: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299; dated January 10, 2024.

fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'.

By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects:

1. Public access to and within the refuge;
2. Opportunities for hunting waterfowl and fishing within the refuge;
3. Opportunities to recreate in the refuge; and
4. Opportunities for viewing, photography, education, and study of fish and wildlife.

In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.

General Comments

Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.

Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.

We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations.

Thank you for the opportunity to comment on the draft documents. Please contact Habitat Biologist Jesse Lindgren at jesse.lindgren@alaska.gov or (907) 465-1635 if you have any questions.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Carl Koch, ADF&G WC, Douglas
Roy Churchwell, ADF&G WC, Douglas
Sue Rodman, ADF&G WC, Anchorage
Christy Gentemann, DOT&PF, Juneau
Theresa Dutchuk, DOWL, Anchorage
Morgan McCammon, DOWL, Anchorage
Steve Noble, DOWL, Anchorage
Mike Salyer, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau
Margaret Custer, MWSGR-CAC, Juneau

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO

Mr. Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Level 2 Screening Process (Consultation Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the Level 2 screening process for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. The Level 2 screening is intended to evaluate the detailed alternatives using a broad range of criteria and considers the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study and the resulting recommended alternatives will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Level 2 Screening Process
We offer the following comments on the Level 2 Screening process.

- We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.

- This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.
- If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.
- In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.

- We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically:
  - The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.
  - Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.
  - If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process.
- For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.
- The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives.
- It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public.
- In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

General Comments

- The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts.
  - We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.

- In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved:
  - Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.
  - Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.
  - Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc.

- The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.
- Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.

<u>Avoidance, Minimization, and Mitigation for Service Trust Resources</u>

- The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (*Brachyramphus marmoratus*), black oystercatcher (*Haematopus bachmani*), rock sandpiper (*Calidris ptilocnemis*), short-billed dowitcher (*Limnodromus griseus*), lesser yellowlegs (*Tringa flavipes*), red knot (*Calidris canutus*), California gull (*Larus californicus*), olive-sided flycatcher (*Contopus cooperi*), rufous hummingbird (*Selasphorus rufus*), chestnut-backed chickadee (*Poecile rufescens*), varied thrush (*Ixoreus naevius),* and Vaux's swift (*Chaetura vauxi*). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.

- Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.
- The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.
- Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.

Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at [redacted] and reference Consultation Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

From: Morgan McCammon
To: Rebecca Bellmore
Cc: Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Jovie Garcia; Lockwood, Gregory K (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Talli Vittetoe; Theresa Dutchuk; Bridget LaPenter; Denise Koch
Subject: RE: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
Date: Wednesday, March 20, 2024 10:31:09 AM
Attachments: image002.png
image003.png

Good morning, Rebecca,

Thank you for sharing your initial comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Rebecca Bellmore <[redacted]>
Sent: Friday, March 15, 2024 4:30 PM
To: Margaret Custer <[redacted]>
Cc: Linda Shaw - NOAA Federal <[redacted]>; Morgan McCammon <[redacted]; Daugherty, Leslie K (DOT) <[redacted]; Purves, Nathan A (DOT) <[redacted] Lindgren, Jesse W (DFG) [redacted]; Meitl, Sarah J (DNR) [redacted]; Lynae Craig [redacted] kbitslarson [redacted]; Spencer, Kari <[redacted] Daniel King [redacted] Matt Robus [redacted]>; Matt Little [redacted]>; Dave Hanna [redacted]; Alaska Concrete Casting [redacted]>; Heidemann, Marie E (DOT) [redacted] Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted] Kolwaite, Douglas S (DOT) <d[redacted]; Taylor, Jill A (DOT) <[redacted] Katie Koester <k[redacted] Bridget LaPenter [redacted]; Irene Gallion [redacted]; Steven Noble <s[redacted]>; Renee Whitesell <[redacted] com>; Jovie Garcia <[redacted]>; Theresa Dutchuk [redacted]>; Ryane Gray [redacted]>; Marella Gungob [redacted] Michael Horntvedt [redacted] Mike Hall <[redacted]; Denise Koch [redacted]>; Keller, Nina (DOT) <n[redacted] >
Subject: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Please see below for our initial comments on the PEL level 2 draft scoring (letter also attached).

Thanks,

Rebecca Bellmore

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

Issue 1. Environmental Data Accuracy and Completeness for Impact Assessment

The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
- Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)
- Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.
- Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?

Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

Issue 2. Level 2 Score Weighting

With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

- PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.)
- North Douglas Connection
- Environmental impacts
- Safety (include airport, Coast Guard)
- Residential impacts

- Visual, cultural, scenic identity
- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
- Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves)
- Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties)
- Social impacts (add recreation impacts)
- Cost
- Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)

Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.

Issue 3. Negative scoring on No Build Alternative, and zero scoring on impacts.

The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

Rebecca Bellmore
Science Director
Southeast Alaska Watershed Coalition
[redacted]
www.alaskawatershedcoalition.org

On Thu, Mar 14, 2024 at 12:41 PM Margaret Custer <[redacted]> wrote:

> Hello Morgan and team,
>
> I would like to request that the Technical and Stakeholder Advisory Committees be provided at least two additional weeks to review and comment on the large volume of materials shared with us. A three-week deadline to provide meaningful feedback on hundreds of pages of detailed reports and scoring tables is just not enough.
>
> The PEL Study timeline has been extended multiple times to accommodate DOWL's needs such that we have now entered year 3 of the study, and it would be appropriate to extend it just once for the advisory committees. Can the deadline for comments from the TAC & SAC be extended until April 11 at the earliest, or ideally April 25, so that the agencies and stakeholders have adequate time to provide the advice that has been requested?
>
> Thank you,
>
> Margaret Custer, Executive Director
> [redacted]
> We live and work on Lingít Aaní. We strive to be consistent with and supportive of the stewardship of these lands by the Indigenous people of the region, recognizing that they have long cared for these lands and their living resources. Aatlein gunalchéesh.

On Tue, Mar 5, 2024 at 8:02 AM Linda Shaw - NOAA Federal [redacted] > wrote:

> Hi Morgan and all,
>
> I just became aware of this mapping data source for coastal resilience and fish and wildlife resources called the Coastal Resilience Evaluation and Siting Tool (CREST), that includes layers for the area of the Juneau Douglas Second Crossing as another source of information for evaluating the project.
>
> Here is the link.
>
> https://resilientcoasts.org/#Home
>
> There is an Alaska tab to navigate to Juneau-Douglas and additional information on the data layers.
>
> Linda
>
> **Linda Shaw (she | her)**
> *Wildlife Biologist, Alaska Region*
> NOAA Fisheries | U.S. Department of Commerce
> Office: [redacted]
> https://www.fisheries.noaa.gov/region/alaska

On Fri, Mar 1, 2024 at 4:35 PM Morgan McCammon <[redacted]> wrote:

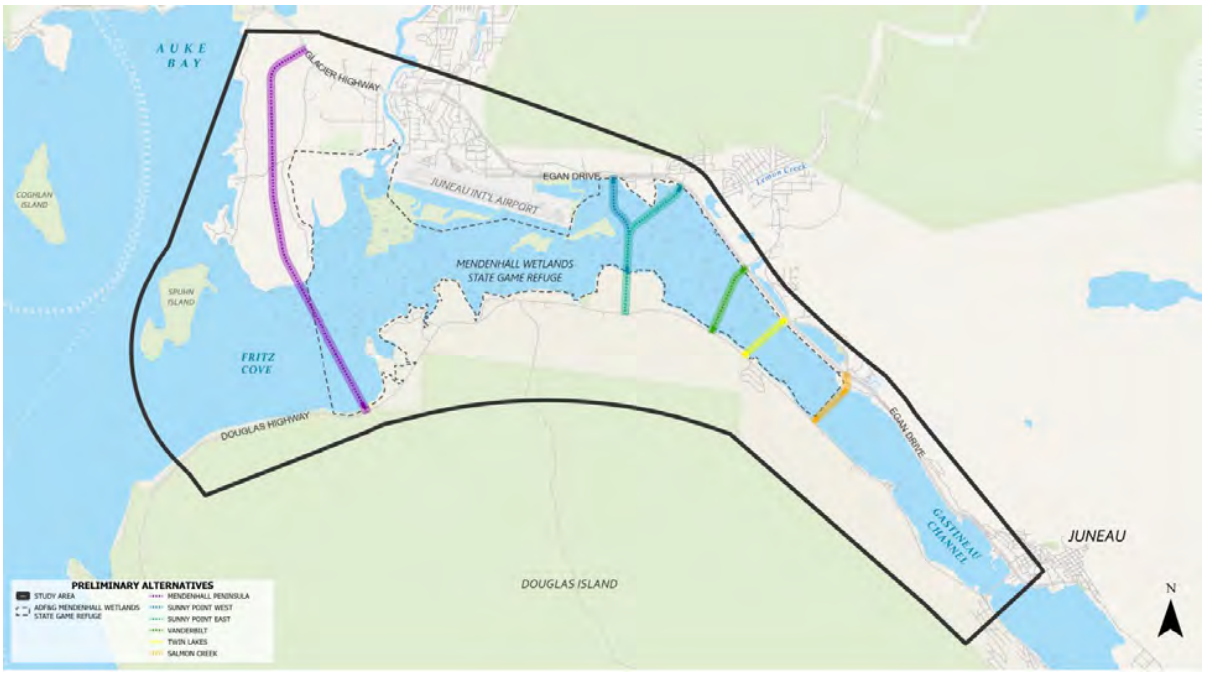
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To: [redacted]

[redacted]

Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

March 15, 2024

Re: PEL Level 2 Draft Scoring

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

Issue 1. Environmental Data Accuracy and Completeness for Impact Assessment

The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
- Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)
- Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.
- Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of

migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?

Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

Issue 2. Level 2 Score Weighting

With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

- PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.)
- North Douglas Connection
- Environmental impacts
- Safety (include airport, Coast Guard)
- Residential impacts
- Visual, cultural, scenic identity
- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
- Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves)
- Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties)
- Social impacts (add recreation impacts)
- Cost
- Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)

Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.

Issue 3. Negative scoring on No Build Alternative, and zero scoring on impacts.

The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming

lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

From:	Morgan McCammon
To:	Michael Stanley; PUB-JDNorthCrossing
Cc:	ellenzuk57@yahoo.com
Subject:	RE: [EXT] NDNA Comments on Level II Screening Results
Date:	Wednesday, April 3, 2024 3:32:20 PM

Good afternoon, Mr. Stanley,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Michael Stanley <[redacted]>
Sent: Wednesday, April 3, 2024 8:49 AM
To: Morgan McCammon [redacted]>; PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Cc: [redacted]
Subject: [EXT] NDNA Comments on Level II Screening Results

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Ms. McCammon and JD North Crossing Study Team,

Attached please find the comments of the North Douglas Neighborhood Association on the PEL Level II screening results and scoring tables. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you.

Mike Stanley
Chair, Second Crossing Committee
NDNA

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
P.O. Box 240303, Douglas Alaska 99824
www.northdouglasneighborhoodassociation.com

COMMENT ON PEL LEVEL II SCREENING RESULTS

The North Douglas Neighborhood Association (NDNA) and its Second Crossing Committee submit the following comments on the PEL Level II Screening Results, reflected in the draft scoring tables that were released by DOWL on March 1 and presented to the PEL stakeholder advisory and technical committees on March 7. NDNA representatives attended the stakeholder meeting and also participated in a subsequent discussion with members of the PEL study team as a follow-up to questions raised at that meeting. A second crossing from the mainland to Douglas Island, north of the existing bridge, will transform and have lasting impacts on our neighborhood, and we appreciate the efforts by DOWL to involve NDNA in the process.

I. General Statement

The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward.

The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.

We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.

We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.

II. Specific Concerns

The comments in this section generally track the criteria as outlined in the Level II screening results overview.

A. Purpose and Need

As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.

Salmon Creek scores +1 point for transportation infrastructure resilience whereas the other options all score +2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.

All of the alternatives score equally for decreasing traffic on the existing bridge, at +1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.

Twin Lakes and Salmon Creek score +1 for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure..." Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.

B. Additional Goals

All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.

The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 – meaning no adverse impacts – which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.

C. Environmental Considerations

Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to "directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing – including air and noise pollution – were among those considered in the evaluation of crossing locations.

Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.

All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the

alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.

The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.

D. Social Considerations

The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.

One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.

E. Housing and Economic Considerations

These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.

F. Safety

The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.

More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.

The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road:

> [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

The Level II screening analysis failed to pay heed to this request.

G. Right of Way

The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.

H. Public Support

The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory

committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a formal survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.

III. Conclusion

NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas – much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau – but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.

We appreciate the opportunity to comment on the Level II screening results and look forward to remaining involved in the consideration of a crossing project.

Date: April 2, 2024

Ellen Ferguson, President
North Douglas Neighborhood Association

Mike Stanley, Chair
NDNA Second Crossing Committee

From: Molly Zaleski - NOAA Federal
To: Theresa Dutchuk
Cc: Morgan McCammon; Linda Shaw - NOAA Federal; Gentemann, Christy D (DOT)
Subject: Re: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
Date: Wednesday, April 3, 2024 3:54:26 PM
Attachments: image001.png
image003.png

Thanks for that clarification, Theresa. I think the crossed communication was it's good to include EFH but it needed to be amended to reflect the whole area of EFH and not the misleading fragmentation. Thanks for including EFH in the narrative, and feel free to request a review of any text from either of us over here to make sure it's being communicated well.

~ Molly

On Wed, Apr 3, 2024 at 3:35 PM Theresa Dutchuk <[redacted]> wrote:

> Hi Molly,
>
> This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening anyhow per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study.
>
> I hope that my misunderstanding about the mapper don't lead you to think that we didn't understand your overall messages. We valued you and Linda taking time to discuss the issues with us.
>
> Apologies for the confusion.
>
> Theresa
>
> **Theresa Dutchuk**
> Senior NEPA Specialist
>
> DOWL
>
> [redacted]
> *dowl.com*
>
> ---
>
> **From:** Molly Zaleski - NOAA Federal [redacted]
> **Sent:** Wednesday, April 3, 2024 2:55 PM
> **To:** Morgan McCammon <[redacted]
> **Cc:** Linda Shaw - NOAA Federal [redacted]; Theresa Dutchuk <[redacted] Gentemann, Christy D (DOT) [redacted]
> **Subject:** [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
>
> WARNING: *External Sender - use caution when clicking links and opening attachments.*
>
> Thanks, Morgan.
>
> I just got around to looking at the mapping tool and noticed the layer prepared for EFH. After our discussion, I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel).
>
> I hope this helps when updating the EFH layer in this public-facing mapping tool. Let me know if you have any questions.
>
> ~ Molly
>
> On Tue, Apr 2, 2024 at 10:43 AM Morgan McCammon <[redacted] wrote:
>
> > Good morning, Juneau Douglas North Crossing PEL Study Advisory Committee Members,
> >
> > We have received requests for access to the GIS information used in the draft level 2 screening evaluation. To assist in your review of the level 2 screening, we have created a GIS web mapper. This GIS mapping can be found here: Juneau Douglas North Crossing Level 2 Screening (dowl.com). As a reminder, we are requesting comments on the level 2 screening preliminary impact table and scoring tables (attached) by **April 11, 2024**.
> >
> > A link to the mapper will also be made publicly available on the website https://www.jdnorthcrossing.com/.
> >
> > Thank you,
> >
> > **Morgan McCammon**
> > Project Communications Specialist
> >
> > DOWL
> >
> > [redacted]
> > *dowl.com*
> >
> > ---
> >
> > **From:** Morgan McCammon [redacted]
> > **Sent:** Monday, March 18, 2024 3:34 PM
> > **Cc:** Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted] ov>; Kolwaite, Douglas S (DOT) [redacted]>; Taylor, Jill A (DOT) [redacted]>; Katie Koester <[redacted] Bridget LaPenter [redacted]>; Irene Gallion [redacted]; Steven Noble <[redacted]; Renee Whitesell [redacted]; Jovie Garcia <[redacted]; Theresa Dutchuk [redacted]>; Ryane Gray [redacted]>; Marella Gungob [redacted]>; Michael Horntvedt [redacted]>; Mike Hall [redacted]; Denise Koch <[redacted]>; Keller, Nina (DOT) <[redacted]>; Morgan McCammon <[redacted]>
> > **Subject:** RE: JDNC Joint Advisory Committee Meetings No. 5
> >
> > Good afternoon, Juneau Douglas North Crossing PEL Study Advisory Committee Members,

Thank you for participating in the advisory committee; we appreciate the diverse perspectives you provide. Due to several requests for additional review time, we are extending the deadline for comments on the level 2 screening preliminary impact table and scoring tables (attached) to **April 11, 2024**. After that, we will evaluate and incorporate necessary changes to finalize the level 2 screening and prepare the draft PEL Study Report.

Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, March 1, 2024 4:34 PM
To: [redacted] Lindgren, Jesse W (DFG) <[redacted]>; Meitl, Sarah J (DNR) <[redacted]; Lynae Craig [redacted] Spencer, Kari [redacted]; Daniel King' <[redacted] Matt Robus [redacted]>; Matt Little [redacted]; Dave Hanna <[redacted]>; Alaska Concrete Casting
Cc: [redacted] Irene Gallion <[redacted]>; Steven Noble [redacted] Renee Whitesell [redacted]; Jovie Garcia [redacted] Theresa Dutchuk [redacted]>; Ryane Gray <[redacted]; Marella Gungob <[redacted]> [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

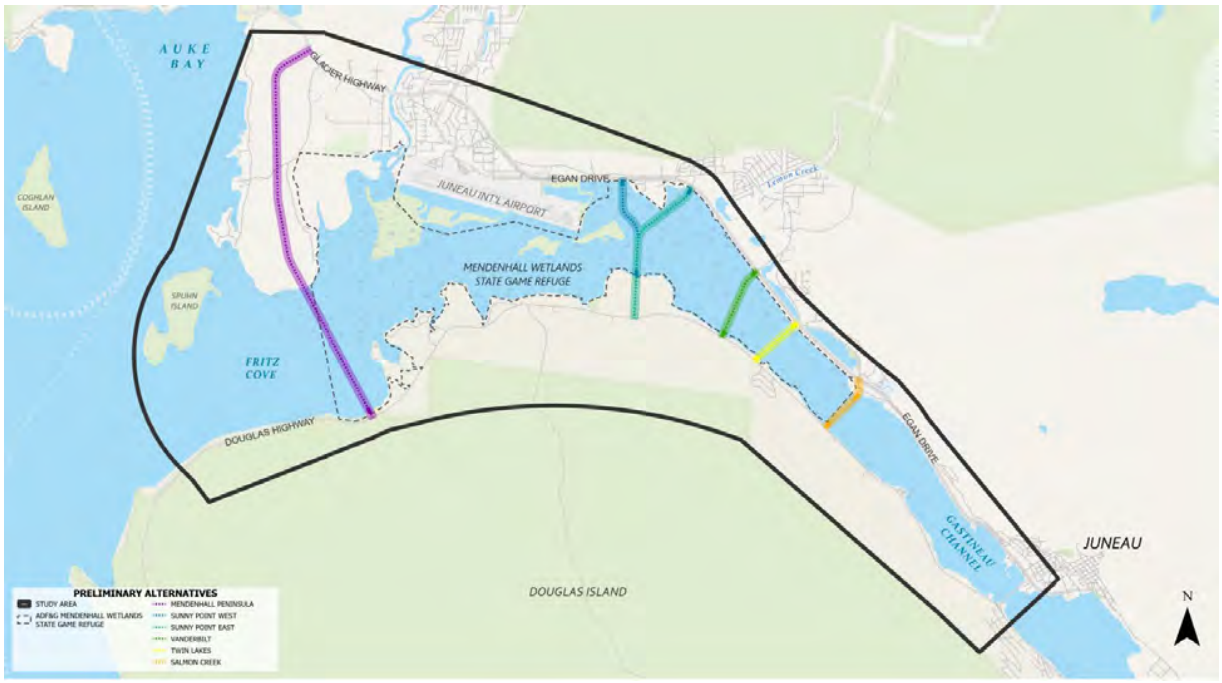
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: [redacted] Irene Gallion ; Steven Noble ; Renee Whitesell < >; Jovie Garcia Theresa Dutchuk < ; Ryane Gray >; Marella Gungob [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To: [redacted] Lindgren, Jesse W (DFG) >; Meitl, Sarah J (DNR) < ; Lynae Craig [redacted] Spencer, Karl ; Daniel King' < >; Matt Robus >; Matt Little Dave Hanna < ; Alaska Concrete Casting < >
Cc: [redacted] Irene Gallion >; Steven Noble < ; Renee Whitesell < >; Jovie Garcia ; Theresa Dutchuk >; Ryane Gray Marella Gungob <n >; Morgan McCammon ; [redacted]
Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon

Public Involvement Specialist

DOWL

[redacted]

dowl.com

--

Molly Zaleski
(she/her)
Marine Habitat Resource Specialist / Habitat Conservation Division / Alaska Region
NOAA Fisheries | U.S. Department of Commerce
[redacted]
Victim Advocate Liaison, WVPR

50 Years of Science, Service, and Stewardship

--

Molly Zaleski
(she/her)
Marine Habitat Resource Specialist / Habitat Conservation Division / Alaska Region
NOAA Fisheries | U.S. Department of Commerce
Office: [redacted]
Victim Advocate Liaison, WVPR

From: Morgan McCammon
To: C Pohl
Cc: PUB-JDNorthCrossing; Theresa Dutchuk
Subject: RE: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening
Date: Wednesday, April 10, 2024 4:06:34 PM

Hi Catherine,

Thank you for the clarification. We appreciate your attendance at today's small group meeting.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: C Pohl <catherine.pohl@outlook.com>
Sent: Wednesday, April 10, 2024 3:24 PM
To: Matt Robus <[redacted]>; Morgan McCammon [redacted]
Cc: Frank Rue [redacted]>; Alex Wertheimet [redacted]>; Bob Armstrong [redacted]>; Bruce Baker [redacted]>; Dan Teske [redacted]; Dave Gaudet <D[redacted]; Deb Rudis <[redacted]; Diane Mayer <d[redacted]; Doug Larsen <[redacted]>; Jay Nelson [redacted]>; Laurie Craig [redacted]>; Michael Stanley <[redacted]>; Neil Stichert <[redacted]>; Richard Carstensen [redacted]>; Ron Somerville [redacted]; Ryan Scott [redacted]; Schumacher, Tom V (DFG) [redacted]>; Steve Peterson <[redacted]; Wright, Brenda [redacted]>; Margaret Custer [redacted]; Keller, Nina (DOT) [redacted]>; Heidemann, Marie E (DOT) <[redacted]>; Gentemann, Christy D (DOT) [redacted]>; Lockwood, Gregory K (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) <d[redacted]>; Taylor, Jill A (DOT) <[redacted]; Katie Koester <[redacted]>; Bridget LaPenter [redacted]>; Irene Gallion [redacted]>; Steven Noble <[redacted]>; Renee Whitesell [redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk <[redacted]>; Ryane Gray [redacted]>; Marella Gungob <[redacted]>; Michael Horntvedt <[redacted]>; Mike Hall <[redacted]>; Denise Koch <[redacted]>
Subject: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Finally, the word on nests vs hotspots. They mislabeled it as nests. And as hotspots. It is just random ebird checklists, though they are calling it ebird hotspots. They don't know what they have for data or how to use it properly.
Total screw up.

Catherine Pohl
[redacted]

From: Matt Robus [redacted]>
Sent: Wednesday, April 10, 2024 8:44 PM
To: Morgan McCammon <m[redacted]>
Cc: Frank Rue [redacted]>; Alex Wertheimet [redacted]>; Bob Armstrong [redacted]>; Bruce Baker [redacted]>; Catherine Pohl [redacted]; Dan Teske [redacted]v>; Dave Gaudet [redacted]; Deb Rudis <[redacted]; Diane Mayer <[redacted]t>; Doug Larsen [redacted]il.com>; Jay Nelson <[redacted]>; Laurie Craig [redacted]com>; Michael Stanley [redacted]>; Neil Stichert [redacted]ail.com>; Richard Carstensen [redacted]>; Ron Somerville [redacted]>; Ryan Scott [redacted]>; Schumacher, Tom V (DFG) [redacted]alaska.gov>; Steve Peterson [redacted]>; Wright, Brenda [redacted]om>; Margaret Custer [redacted].gov>; Heidemann, Marie E, DOT, [redacted]>; Gentemann, Christy D, <[redacted]>; Lockwood, Gregory K, <[redacted]>; Kolwaite, Douglas S, [redacted]>; Taylor, Jill A, [redacted]Katie Koester [redacted]v>; Bridget LaPenter <[redacted]>; Irene Gallion <[redacted]>; Steven Noble [redacted]>; Renee Whitesell [redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]; Ryane Gray [redacted]>; Marella Gungob [redacted]; Michael Horntvedt <[redacted]>; Mike Hall [redacted]>; Denise Koch <[redacted]v>
Subject: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

Good afternoon, Morgan,

On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate.

Thank you for the opportunity to comment.

Matt Robus

From: C Pohl
To: Morgan McCammon
Cc: [redacted]t; Gentemann, Christy D (DOT); Matt Robus
Subject: Re: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening
Date: Wednesday, April 10, 2024 5:37:32 PM

Thanks for the opportunity to meet via web.

Yes, nice to have some clarification, if you can call it that. So, for the record, we have determined that your "nests" are not nests, and your ebird "Hotspots" are not eBird hotspots, at least not the community-based hotspots shown on the ebird portal. And they are also not Armstrong et al. Hotspots, just random bird observations of any number of any species arbitrarily given a 500 foot buffer.

How did you determine these points to be a measure of "important bird habitat"? The points you circled indicate that birders use the area, but in themselves nothing about the numbers or types of birds. You need a more specific query of that data source to get the information you need.

And for the record, I don't appreciate being stonewalled on this and other questions. I asked about this several times before because it was obvious then that you had a big problem with your bird habitat ratings and criteria.

Bird habitat is the KEY VALUE of the refuge, and the refuge habitat and use is the KEY SITING CONSIDERATION. It is concerning to see the chaos, poor communication, and lack of understanding of resources, data and its appropriate use, especially after our diligent attempts to point you toward the available data sources.

I should not have had to grill your team repeatedly to get a correct answer. Was your biologist (again?) instructed not to speak? Why did I have to ask so many times? And why was this question not answered before in my communications with DOWL/DOT? Today's meeting again left the impression that the resource staff are muzzled, that information is being withheld or even manipulated. And even when they finally spoke up, their answer indicated that no one on the team understands the data or how to use it and that the various parties – GIS, biologist, NEPA specialist-- are not communicating. That is, well, astonishing. This must not be a high priority project for DOWL.

If you need me to demonstrate with a shared screen, I can show your biology staff a simple way to find ebird observations on seasonal habitat use by flocks of waterfowl. Or one could just read the ebird website. hint: click on explore species, use the key species for that site (Canada Goose, Vancouver Canada Goose, Mallard), set your seasonal and overall date intervals, and bingo-- there it is. Or one could do automated queries, as apparently you had attempted (or someone did this for your group and then wasn't available to show how to use

it?)

In our comments, we also provide a map that shows polygons that represent survey areas from the Armstrong et al Hotspots survey, the other key data source. This shows what areas are associated with the Hotspot survey points indicated in the report. We can provide the raw data table of observation keyed to those areas, as I told your group last year. We can also provide photographs of flocks at some of these locations.

For the Douglas side of the Sunny alignments, it is best to rely on bird use of similar areas of the refuge-- that is also spelled out in our comments and was recommended by Parametrix (see their report)– as that area doesn't have a lot of data.

For the record, DOWL did not answer the question about a whole new set of alignment drawings that were not on the shared map materials until a few days ago via your data portal. Theresa could have opened the portal and displayed the fill footprints for impervious surfaces. These show smaller fill areas at some interchanges, and pilings over the rest, and may be what you actually used for wetland impacts etc. It would have been helpful to share these earlier when we had time to use them, and to explain that these are the areas used to calculate acreages rather than leave us guessing. You apparently consider there is no wetland or other impact from miles of pilings, or even from the larger interchange areas shared earlier.

Catherine Pohl
[redacted]

From: Morgan McCammon [redacted]>
Sent: Thursday, April 11, 2024 12:06 AM
To: C Pohl <[redacted]>
Cc: PUB-JDNorthCrossing <J[redacted]>; Theresa Dutchuk [redacted]
Subject: RE: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

Hi Catherine,

Thank you for the clarification. We appreciate your attendance at today's small group meeting.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: C Pohl <c[redacted]>
Sent: Wednesday, April 10, 2024 3:24 PM

To: Matt Robus [redacted]>; Morgan McCammon <[redacted]@[redacted]>
Cc: Frank Rue [redacted]>; Alex Wertheimet <[redacted]>; Bob Armstrong [redacted]; Bruce Baker [redacted]>; Dan Teske <[redacted]>; Dave Gaudet [redacted]>; Deb Rudis [redacted]>; Diane Mayer <[redacted]; Doug Larsen [redacted]>; Jay Nelson [redacted]>; Laurie Craig [redacted]>; Michael Stanley [redacted]>; Neil Stichert [redacted]>; Richard Carstensen [redacted]>; Ron Somerville <[redacted]>; Ryan Scott <[redacted]; Schumacher, Tom V (DFG) [redacted]>; Steve Peterson [redacted]>; Wright, Brenda [redacted]>; Margaret Custer <[redacted]>; Keller, Nina (DOT) <[redacted]>; Heidemann, Marie E (DOT) <[redacted]v>; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted]>; Taylor, Jill A (DOT) [redacted]; Katie Koester <[redacted]>; Bridget LaPenter <[redacted]>; Irene Gallion <[redacted]>; Steven Noble <[redacted]>; Renee Whitesell [redacted]>; Jovie Garcia <[redacted]>; Theresa Dutchuk [redacted]>; Ryane Gray <r[redacted]>; Marella Gungob [redacted]>; Michael Horntvedt <[redacted]>; Mike Hall <[redacted]>; Denise Koch <[redacted]>
Subject: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

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Finally, the word on nests vs hotspots. They mislabeled it as nests. And as hotspots. It is just random ebird checklists, though they are calling it ebird hotspots. They don't know what they have for data or how to use it properly.

Total screw up.

Catherine Pohl
[redacted]

From: Matt Robus <[redacted]>
Sent: Wednesday, April 10, 2024 8:44 PM
To: Morgan McCammon [redacted]>
Cc: Frank Rue [redacted] Alex Wertheimet [redacted]>; Bob Armstrong [redacted]>; Bruce Baker [redacted]>; Catherine Pohl [redacted]>; Dan Teske [redacted]>; Dave Gaudet [redacted]>; Deb Rudis <[redacted]>; Diane Mayer <[redacted]>; Doug Larsen [redacted]com>; Jay Nelson [redacted]>; Laurie Craig [redacted]m>; Michael Stanley <[redacted]>; Neil Stichert [redacted].com>; Richard Carstensen [redacted]>; Ron Somerville [redacted] Ryan Scott [redacted]>; Schumacher, Tom V (DFG)

[redacted] a.gov>; Steve Peterson [redacted]>; Wright, Brenda [redacted]; Margaret Custer [redacted]>; Heidemann, Marie E, DOT, <[redacted]>; Gentemann, Christy D, <[redacted]>; Lockwood, Gregory K, <[redacted] Kolwaite, Douglas S, [redacted]; Taylor, Jill A, [redacted]; Katie Koester [redacted] Bridget LaPenter <b[redacted]v>; Irene Gallion [redacted]v>; Steven Noble [redacted]>; Renee Whitesell [redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]; Ryane Gray [redacted]>; Marella Gungob [redacted]>; Michael Horntvedt [redacted]>; Mike Hall <[redacted]; Denise Koch [redacted]

Subject: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

Good afternoon, Morgan,

On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate.

Thank you for the opportunity to comment.

Matt Robus

From:	Morgan McCammon
To:	Kanouse, Kate M (DFG); Lockwood, Gregory K (DOT)
Cc:	Mulligan, Benjamin J (DFG); Ott, Alvin G (DFG); DFG - HAB Douglas Staff; Teske, Daniel J (DFG); Forbes, Scott N (DFG); Koch, Carl H (DFG); Churchwell, Roy T (DFG); Rodman, Sue U (DFG); Gentemann, Christy D (DOT); Theresa Dutchuk; Steven Noble; [redacted] Stevens, Andrew; [redacted] Welch, Robert K (DPS); [redacted]; Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Theresa Dutchuk
Subject:	RE: [EXT] ADF&G Comments on the Juneau-Douglas Crossing DRAFT Level 2 PEL
Date:	Friday, April 12, 2024 7:15:47 AM
Attachments:	4-11-2024 ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening.pdf

Good morning, Kate,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Kanouse, Kate M (DFG) [redacted]>
Sent: Thursday, April 11, 2024 5:33 PM
To: Lockwood, Gregory K (DOT) [redacted]
Cc: Mulligan, Benjamin J (DFG) [redacted]; Ott, Alvin G (DFG) [redacted]>; DFG - HAB Douglas Staff [redacted]>; Teske, Daniel J (DFG) [redacted]; Forbes, Scott N (DFG) <s[redacted]>; Koch, Carl H (DFG) [redacted]>; Churchwell, Roy T (DFG) [redacted]>; Rodman, Sue U (DFG) [redacted]>; Gentemann, Christy D (DOT) [redacted]; Theresa Dutchuk [redacted]; Steven Noble [redacted]; [redacted]; Stevens, Andrew <[redacted]>; [redacted]; Welch, Robert K (DPS) [redacted] Morgan McCammon [redacted]>
Subject: [EXT] ADF&G Comments on the Juneau-Douglas Crossing DRAFT Level 2 PEL

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Greg,

Attached are ADF&G's comments on the draft Level 2 PEL documents provided for the Juneau-Douglas Crossing project review.

Kate Kanouse
Southeast Regional Supervisor
ADF&G Habitat Section - Region 1
[redacted]

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

OFFICE OF THE COMMISSIONER
Headquarters Office

1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.6136
Fax: 907.465.2332

TO: Greg Lockwood, Engineer/Architect
Dept. of Transportation and Public Facilities

DATE: April 11, 2024

FILE: Gastineau Channel Bridge: DOT Second Crossing

SUBJECT: Juneau-Douglas Second Crossing
PEL Draft Level 2 Screening
Project No. SFHWY00299

FROM: Benjamin Mulligan
Deputy Commissioner

PHONE NO: (907) 267-2190

Alaska Department of Fish and Game (ADF&G) has reviewed the Draft Level 2 Scoring Table 2-29-24 and Draft Level 2 Impact Table 3-1-24 for the Juneau-Douglas second crossing Preliminary Environmental Linkages (PEL) study. The proposed Level 2 scoring process ranks crossing alternatives based on the sum of scores assigned to each criterion, which appears incomplete and lacks definitions to support assigned scores. Our comments below are on the scoring system and sectioned into the overall scoring system, environmental scoring, Section 4(f)/(6) resources, and general comments per the screening considerations.

Overall Scoring System

The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.

The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between 0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.

We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.

Environmental Scoring

For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).

Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for 'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.

Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.

Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.

Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.

The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km.[1]

Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.[2]

Section 4(f)/6(f) Resources

The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting,

[1] Goodship, N.M. and R.W. Furness. (MacArthur Green). 2002. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

[2] Flynn Casey, Habitat Biologist, to Kate Kanouse, Southeast Regional Supervisor, Alaska Department of Fish and Game, Habitat Section. Memo: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299; dated January 10, 2024.

fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled ‘Section 4(f)/6(f) Resources Affected'.

By integrating these important activities into the ‘Section 4(f)/6(f) Resources Affected’, it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects:

1. Public access to and within the refuge;
2. Opportunities for hunting waterfowl and fishing within the refuge;
3. Opportunities to recreate in the refuge; and
4. Opportunities for viewing, photography, education, and study of fish and wildlife.

In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.

General Comments

Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge’s origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.

Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.

We are interested in understanding more on how you scored the alternatives under ‘Level of Public Support’. Please provide the information you used to make these determinations.

Thank you for the opportunity to comment on the draft documents. Please contact Habitat Biologist Jesse Lindgren at [redacted] if you have any questions.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Carl Koch, ADF&G WC, Douglas
Roy Churchwell, ADF&G WC, Douglas
Sue Rodman, ADF&G WC, Anchorage
Christy Gentemann, DOT&PF, Juneau
Theresa Dutchuk, DOWL, Anchorage
Morgan McCammon, DOWL, Anchorage
Steve Noble, DOWL, Anchorage
Mike Salyer, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau
Margaret Custer, MWSGR-CAC, Juneau

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO

Mr. Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Level 2 Screening Process (Consultation Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the Level 2 screening process for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. The Level 2 screening is intended to evaluate the detailed alternatives using a broad range of criteria and considers the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study and the resulting recommended alternatives will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Level 2 Screening Process
We offer the following comments on the Level 2 Screening process.

- We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.

- This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.
- If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.
- In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.

- We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically:
  - The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.
  - Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.
  - If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process.
- For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.
- The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives.
- It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public.
- In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

General Comments

- The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts.
  - We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.

- In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved:
  - Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.
  - Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.
  - Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc.

- The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.
- Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.

<u>Avoidance, Minimization, and Mitigation for Service Trust Resources</u>

- The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (*Brachyramphus marmoratus*), black oystercatcher (*Haematopus bachmani*), rock sandpiper (*Calidris ptilocnemis*), short-billed dowitcher (*Limnodromus griseus*), lesser yellowlegs (*Tringa flavipes*), red knot (*Calidris canutus*), California gull (*Larus californicus*), olive-sided flycatcher (*Contopus cooperi*), rufous hummingbird (*Selasphorus rufus*), chestnut-backed chickadee (*Poecile rufescens*), varied thrush (*Ixoreus naevius),* and Vaux's swift (*Chaetura vauxi*). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.

- Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.
- The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.
- Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.

Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at [redacted] and reference Consultation Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

SOUTHEAST ALASKA LAND TRUST

Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments

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PEL Study Process

These comments are provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee on 4/11/24 in response to the request for comments on the application of Level 2 screening detailed in the Level 2 Draft Screening Results and the Level 2 Draft Impact Quantification Table that were presented at a 3/7/24 JDNC PEL Study Joint Advisory Committee meeting.

SEALT has engaged in the PEL Study process since March 2022 by participation on the Technical Advisory Committee (TAC) and provides the following pieces of feedback related to the PEL Study's process and the data sources used to advance alternatives.

Technical Advisory Committee Engagement

SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. This is a lingering defect in the JDNC PEL Study Process in two ways:

- PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory

committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.

- The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.

Quality of Information and Expertise

In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.

For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.

The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about

potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.

Overview of PEL Study Field Work

Reports from DOWL and Parametrix Field Work

In September 2023, the PEL Study team announced to the TAC that the PEL Study would add field work into the process for Level 2 Screening, with that field work commencing immediately. This feedback is in response to the reports generated by that field work and released to the TAC February 16, 2024:

- Wetland Delineation and Functional Assessment Report (February 2024)
- Intertidal Habitat Survey Report (December 2023)
- Bird and Habitat Surveys Report (January 2024)
- Tier 1 Eelgrass Delineation Report (February 2024)
- Bridge Volume Forecast Memo (February 2024)

Comments relating to these reports follow, with a standalone section for each prepared in the limited time that we have to provide comments before the PEL Study findings are synthesized from the reports.

SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports

It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.

The SEALT Habitat Mapping and Assessment Project includes two significant components:

1. **A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and**
2. **A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.**

The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.

Review of Wetland Delineation & Functional Assessment Report (Feb 2024)

SEALT Review of DOWL Wetland Field Survey Report

SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find **no relation between the wetland survey report and the impact quantification matrix or scores** and **no functional assessment** as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is **no summary of the wetland acreage to be impacted by type and alignment**.

It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.

It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.

We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by

alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.

First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.

Tidal Wetland/Waters Delineation

Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.

Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.

The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.

The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East

alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)

Freshwater Wetlands

Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals. **It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.**

Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.

Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the "missed" area in DOWL's report has significant cover of rusty Menziesia, a shrub classified as "facultative upland" although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.

Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives' alignment crossing Hendrickson Point. Inappropriately considered "FACUP" ("facultative upland," usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.

Given the difficulties of delineation with the USACE's weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL's delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.

We observe, however, that DOWL's impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.

Some of the "missed" areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from "impacted wetland acres" tallies used for comparing alternatives, so this omission is significant and concerning.

While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.

The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ's 2014 mapping were also missed along the Mendenhall Peninsula alignment.

SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.

Lack of Functional Assessments in DOWL's Work

The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.

The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.

The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include

sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.

SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.

Questions

1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?
2. What protocol will DOWL use?
3. Will the alternatives be re-scored using the functional assessments?
4. Will the functional assessments be completed before or after the public comment period opens?
5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?
6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?

Review of Intertidal Habitat Survey Report (Dec 2023)

The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: **"This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."**

SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.

The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft-wide alignment for each alternative, and with few habitat types.

While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:

- For example, the **intertidal crossing distances** given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.
- **Low marsh acreage** in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for **high marsh** as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)
- Special habitats mentioned in the report such as **mussel/rockweed habitat, channels, and deltas** that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.

Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).

High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for

the report's "upper intertidal" do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.

High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.

While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)

It might also be useful in this project area to map "wet high marsh" and/or "ponded high marsh" as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.

It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to -10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?

Review of Bird and Habitat Surveys Report (Jan 2024)

Bird Habitat

The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.

Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.

DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.

The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.

The PEL bird habitat impact rating shows “0”s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.

How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from “hotspots”. Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound *if applied correctly* and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.

If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The ‘points’ represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.

For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional

observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.

Fish Habitat

Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."

Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.

These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.

In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. **Every crossing alternative would disrupt one or more anadromous fish streams**. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.

Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.

The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the

Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.

The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.

Mammal Habitat on Hendrickson Point

The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.

The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.

SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.

The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.

The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.

Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. **This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor.** While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.

Review of Tier 1 Eelgrass Delineation Report (Feb 2024)

Introduction

The “Introduction” starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.

While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report’s introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.

Previous Investigation

The “Previous Investigation” section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the “Previous Investigation” section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.

Methods

A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.

Results

The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For

the purpose of this review, a revised results table with the needed tidal information in italics is shown below.

Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.

While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.

Correction for Table 2: Alignment Traverse and Tide Stage

Alignment	Date (2023)	Start Time	End Time	*Tidal Stage During Survey*	*Low Tide*	
Mendenhall	September 28	6:01 PM	6:48 PM	Ebb	*~.5 to -1*	*(LT -1.38 at 7:17 PM)*
	September 29	5:12 PM	6:06 PM	Ebb	*~7 to 2.5*	*(LT -2.7 at 7:59 PM)*
Sunny Point W	September 29	9:23 AM	10:51 AM	Flow	*~2 to 10*	*(LT -2.29 at 7.33 AM)*
Sunny Point E	September 29	10:09 AM	12:09 PM	Flow	*~4.5 to 15+*	*(LT -2.29 at 7.33 AM)*
Vanderbilt	September 27	5:40 PM	5:48 PM	Ebb	*~1.5 to 1*	*(LT .49 at 6:32 PM)*
	September 28	8:16 AM	9:05 AM	Flow	*~0 to 2.5*	*(LT -2.11 at 6:53 AM)*
Twin Lakes	September 28	7:06 AM	8:03 AM	Flow	*~-2 to -.5*	*(LT -2.11 at 6:53 AM)*
	September 27	6:01 PM	~6:29 PM	Ebb	*~1 to .5*	*(LT .49 at 6:32 PM)*
Salmon Creek	September 27	~6:29 PM	6:40 PM	Flow	*~-1 to .5*	*(LT .49 at 6:32 PM)*
	September 28	9:06 AM	10:01 AM	Flow	*~2.5 to 7*	*(LT -2.11 at 6:53 AM)*

Maps

The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.

The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.

While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.

In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.

- Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.
- The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.
- Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel**.**

Even with some eelgrass on the Falls Creek delta, **the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.**

Review of Bridge Volume Forecast Memo (Feb 2024)

DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores.

The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts. A summary:

- A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).
- **After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040**, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.
- By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.
- The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.

It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.

Level 2 Screening: Process & Methodology

PEL Study Should Be Data- As Well As Process-Driven

- Well-defined and transparent public process
- Coherent and defensible data-based results
- Not meant to circumvent regulatory responsibilities
- Communication to and understanding by stakeholders and technical advisors

These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.

In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.

Screening Elements from 2022-2023 Missing in 2024

DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, **DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.**

- "High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.
- For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.

- The score for “Important Migratory Bird Habitat Impacted” would have been determined by the acreage of habitat impacted by construction.
- For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.
- “Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.
- “Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.
- The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.

Scoring Methodology

No Build

We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.

However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.

Scoring a No Build alternative at 0 for criteria such as "Avoid, minimize, and mitigate negative impacts to the environment" is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.

Weighting the Criteria

It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.

Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.

The Need for Granularity

The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.

The range of -2 to +2 lumps *moderate impacts* with *severe impacts*, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.

Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion "Avoid, minimize, and mitigate impacts to the environment" scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL's current scoring to see that difference.

In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).

Level 2 Screening: Conflicts Between Alternatives and Existing Plans

With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.

1. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
2. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.
3. **2013 CBJ Comprehensive Plan**:
    i. The alternatives located within the Refuge's boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
    ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the

Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.

iii. As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.

iv. Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.

4. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
5. **Marjory and Edgar Huizer Fishing Access Site Management Plan**: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.
6. **Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2**: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "…*may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until:*

"(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an

alternative other than a Sunny Point alternative; and
"(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record.
"Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law."

There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.

Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.

Impacts from Alternatives

SEALT's Functional Assessments

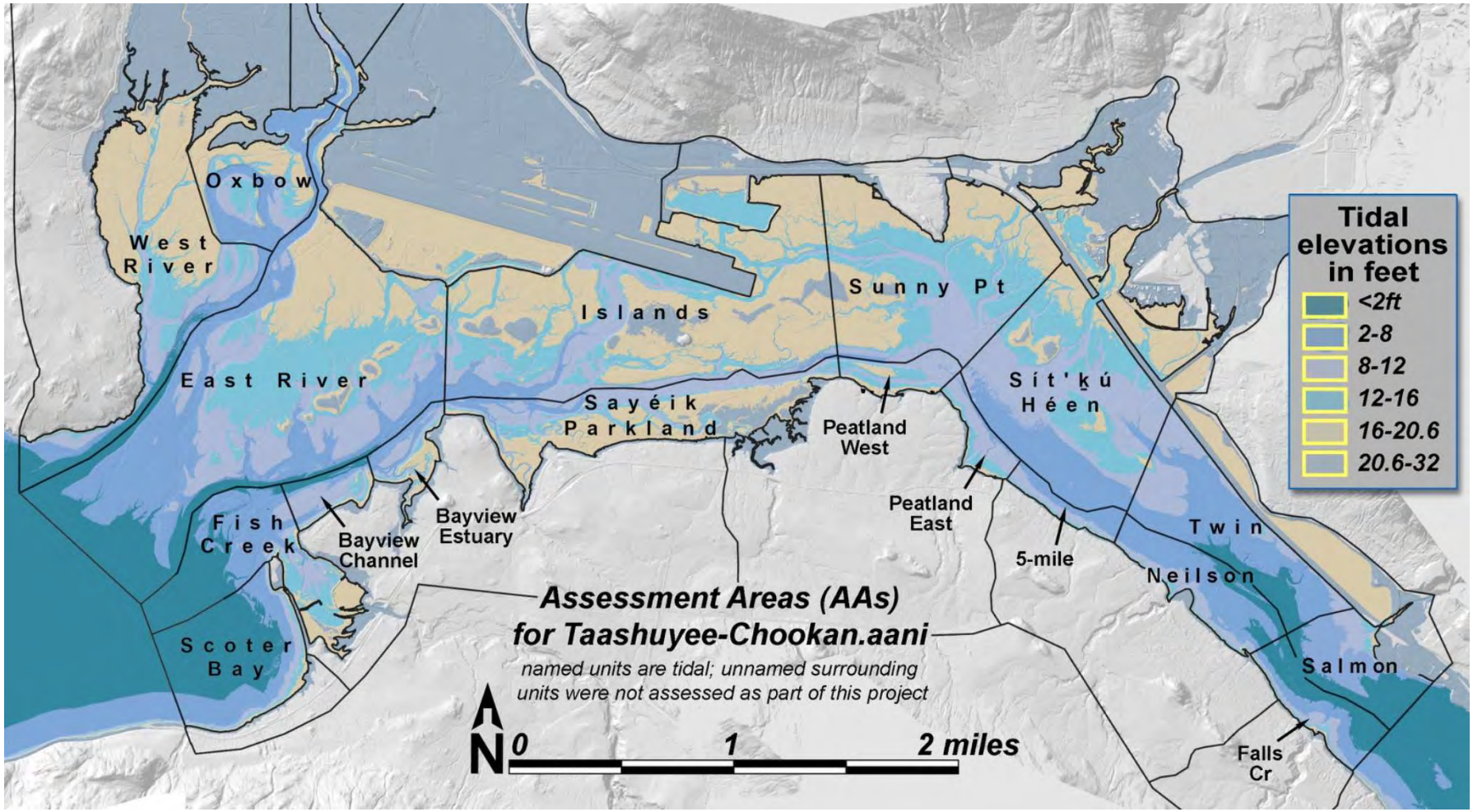
The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.

For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershed-based areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.

Table 1: WESPAK-SE Protocol - Functions and Values

Function or Attribute	Definition	Values
Sediment Retention & Stabilization	The effectiveness for intercepting and filtering suspended inorganic sediments thus allowing their deposition, as well as reducing energy of waves and currents, resisting excessive erosion, and stabilizing underlying sediments or soil.	Maintain quality of receiving waters. Protect shoreline structures from erosion.
Carbon Sequestration	The effectiveness for retaining both incoming particulate and dissolved carbon and converting carbon dioxide gas to organic matter (particulate or dissolved), and then retaining that organic matter on a net annual basis for long periods while emitting little or no methane.	Reduce risk of global climate change.
Organic Nutrient Export	The effectiveness for producing and subsequently exporting organic nutrients (mainly carbon), either particulate or dissolved.	Support food chains in receiving waters. Facilitate transfer of iron to marine waters.
Anadromous Fish Habitat	The capacity to support rearing or spawning habitat of fish species that migrate from marine waters into freshwater streams to spawn, e.g., coho/sockeye.	Support commercial, subsistence, sport, and ecological values. Infuse uplands with marine nutrients.
Waterbird Feeding Habitat	The capacity to support or contribute to an abundance or diversity of waterbirds that migrate or winter but do not breed in the region.	Support subsistence, sport, and ecological values. Maintain regional biodiversity.
Songbird, Raptor, & Mammal Habitat	The capacity to support or contribute to an abundance or diversity of native songbird, raptor, and mammal species and functional groups, especially those that are most dependent on wetlands or water.	Maintain regional biodiversity.
Native Plant Habitat	The capacity to support or contribute to a diversity of native, hydrophytic, vascular plant species, communities, and/or functional groups.	Maintain regional biodiversity and food chains.
Public Use and Recognition	Prior designation of the wetland, by a natural resource or environmental protection agency, as some type of special protected area. Also, the potential and actual use of a wetland for low-intensity outdoor recreation, education, or research.	Commercial and social benefits of recreation. Protection of prior public investments.
Subsistence and Provisioning Services	The “customary and traditional” uses of wild resources for various uses including food, shelter, fuel, clothing, tools, transportation, handicrafts, sharing, barter, and customary trade.	(this is an attribute, not a function or value).
Wetland Sensitivity	A wetland's lack of intrinsic resistance and resilience to human and natural stressors.	(this is an attribute, not a function or value).
Stress Potential	The degree to which a wetland is or has recently been altered by or exposed to, risk from factors capable of reducing one or more function, primarily human-related.	(this is an attribute, not a function or value).

Figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas



Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.

Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.

As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.

Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas

Crossing Site--	Mendenhall Pen.		Sunny Pt E and W		Vanderbilt		Twin Lakes		Salmon Creek	
Assessment Area--	W River	Scoter Bay	Sunny Pt.	Peatland Pt W	Sit Ku Heen	5 Mile	Twin	Neilson	Salmon Ck	Falls Ck
WESPAK-SE overall	10.98 H	8.36 H	10.17 H	8.56 H	9.99 H	9.31 H	8.30 H	8.69 H	7.13 H	7.61 H
(vegetated tidal)										
waterbird feeding	10 H	10 H	10 H	10 H	10 H	10 H	10 H	10 H	9.71 H	10 H

Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.

While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.

The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by

the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.

At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.

WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G-nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.

Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.

The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.

Impacts to Wetlands

False Precision in DOWL's Calculations

The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.

The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.

Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).

This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.

ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.

SEALT Calculations of Impacts to Habitat by Alternative

In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.

Figure 2: Acreage of Impacts by Alternative

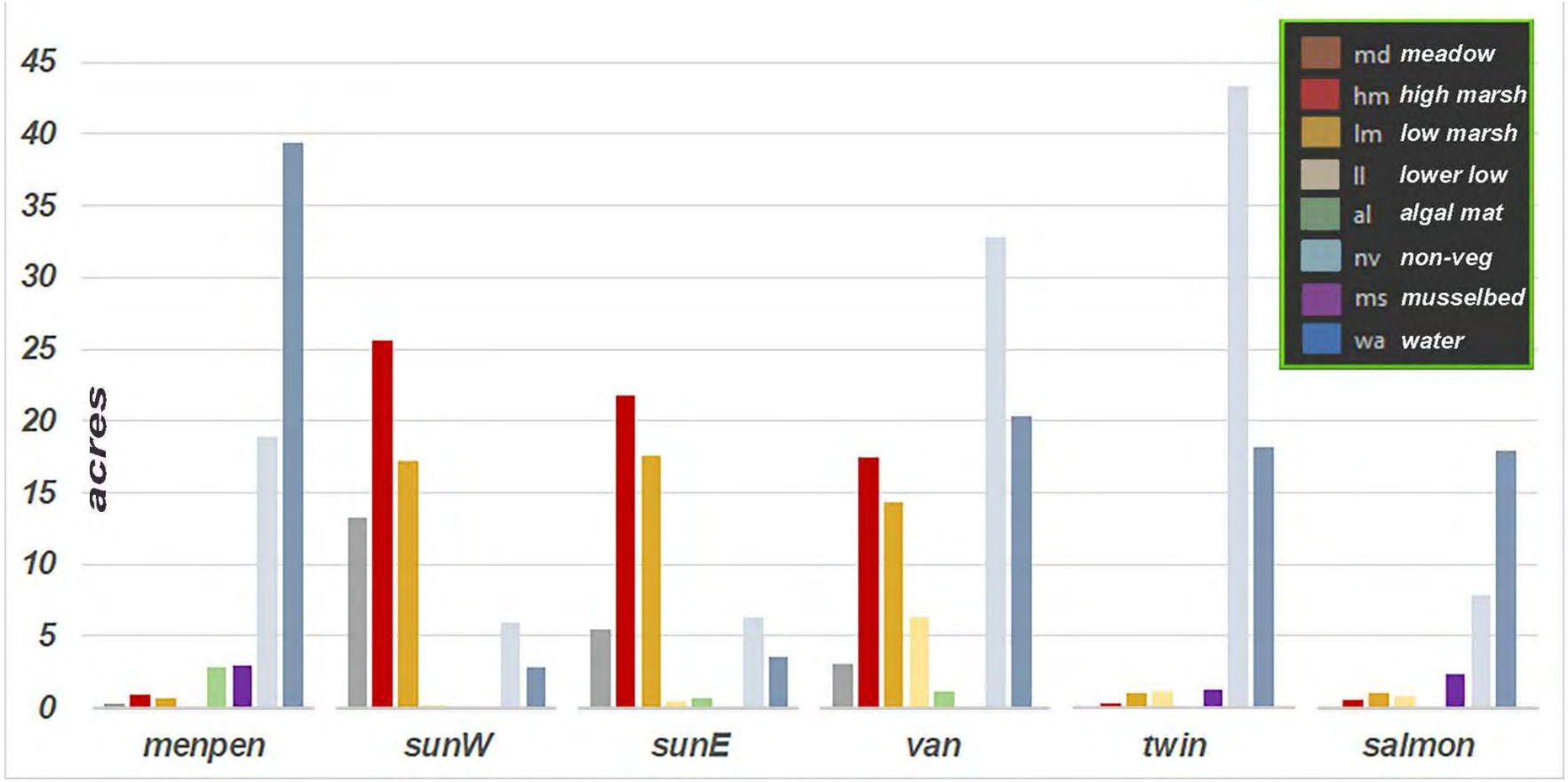


Figure 3: Percentage of Habitat Impacts by Alternative

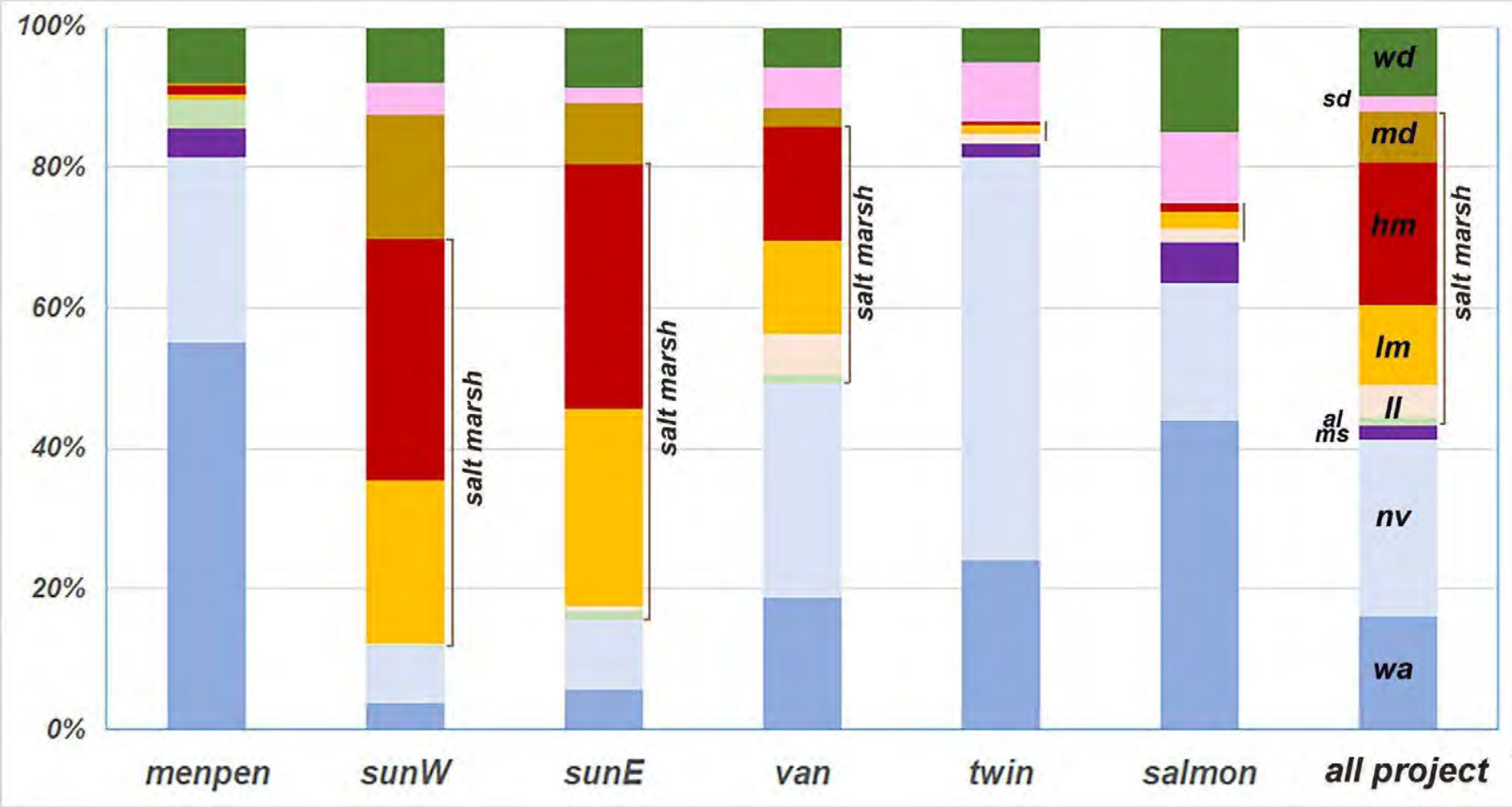


Figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map

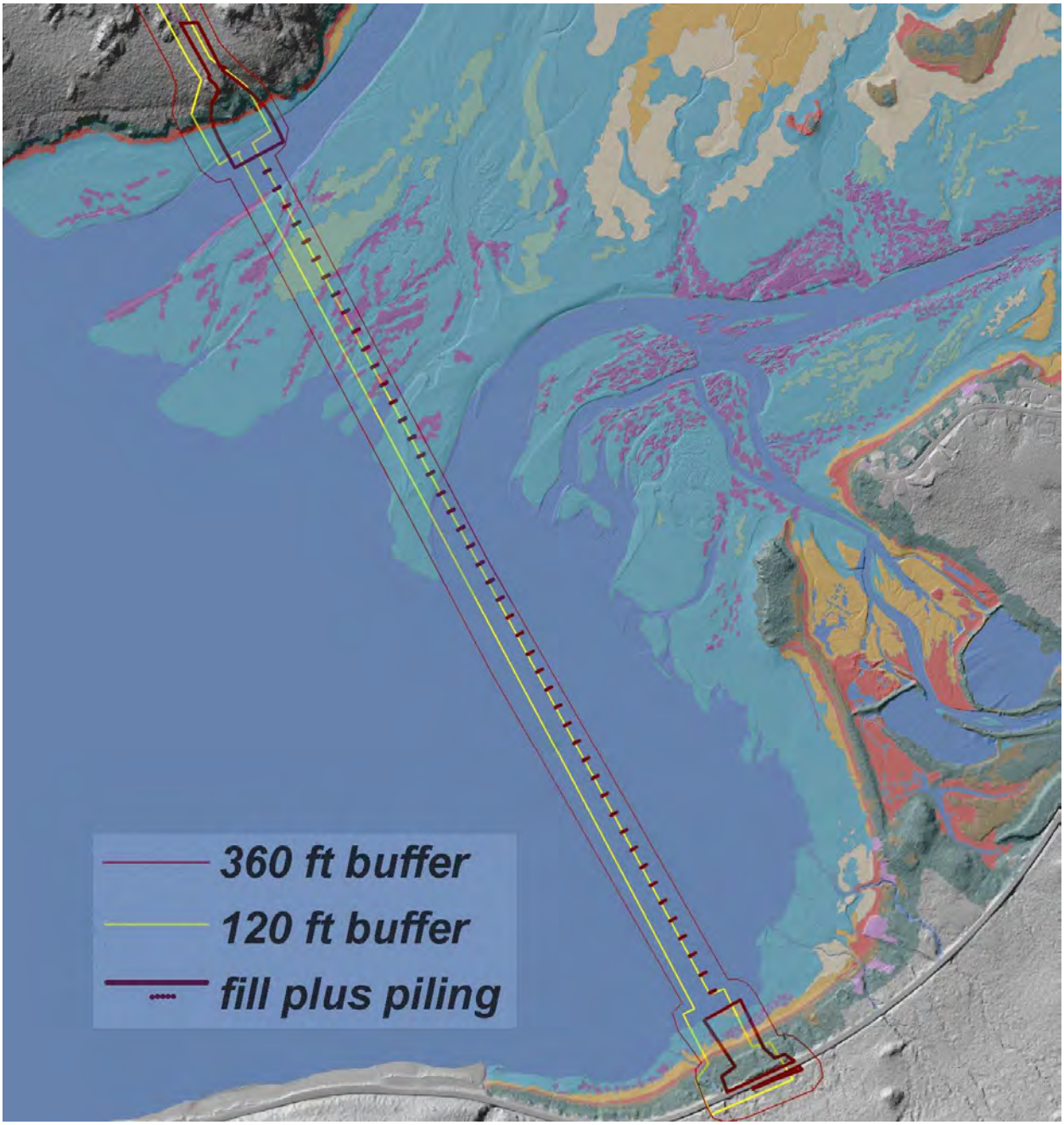


Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map

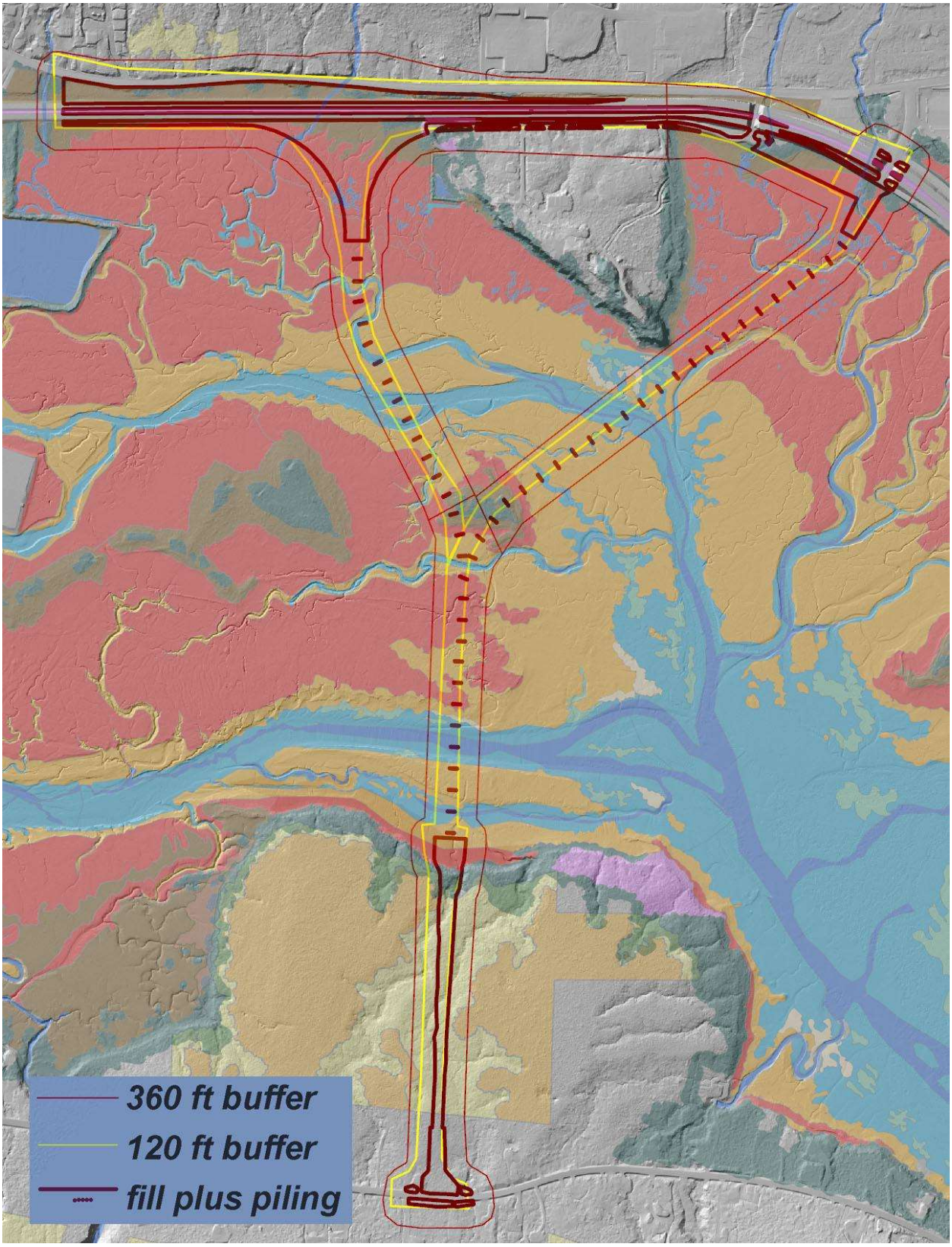


Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map

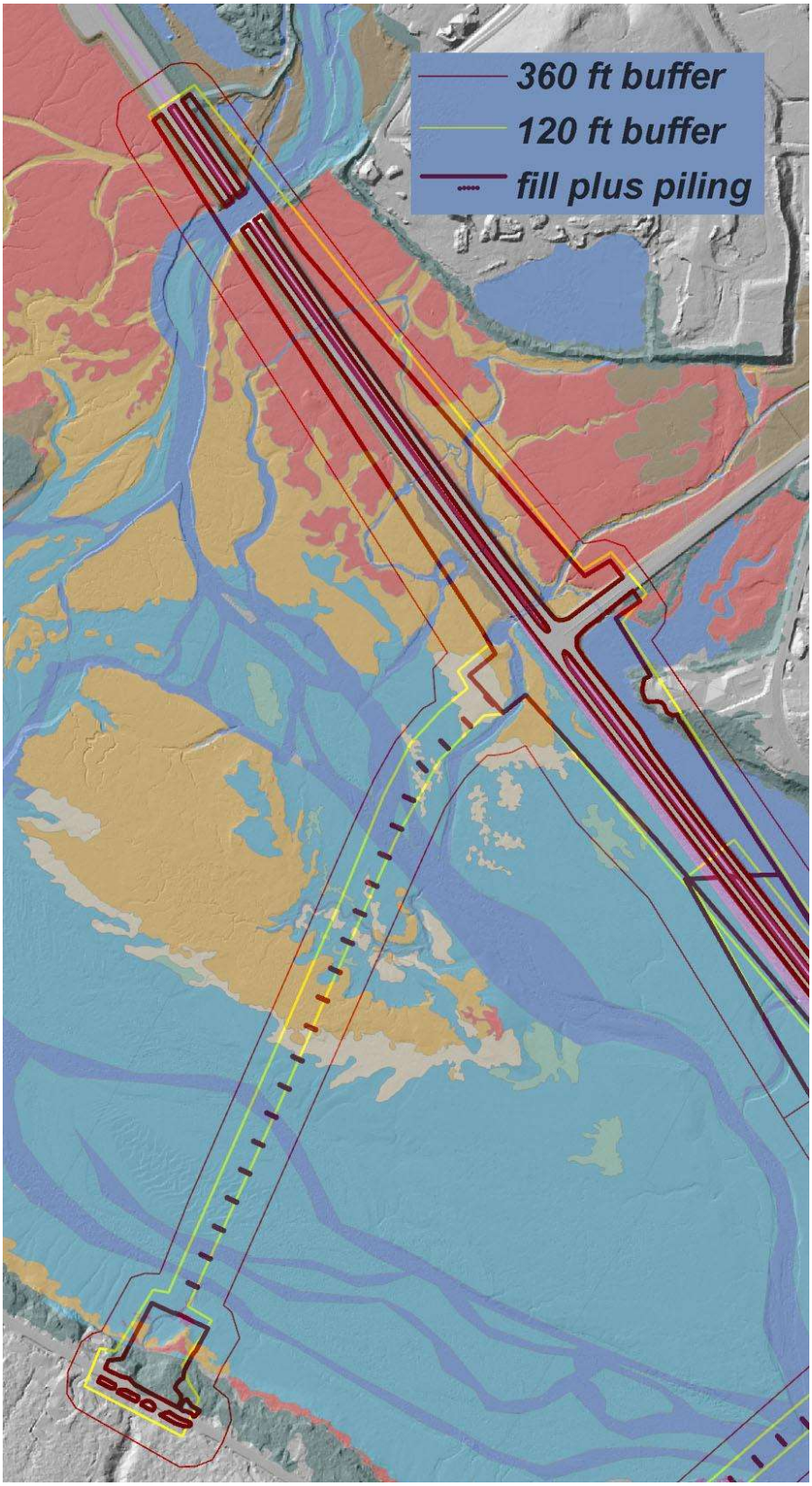


Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map

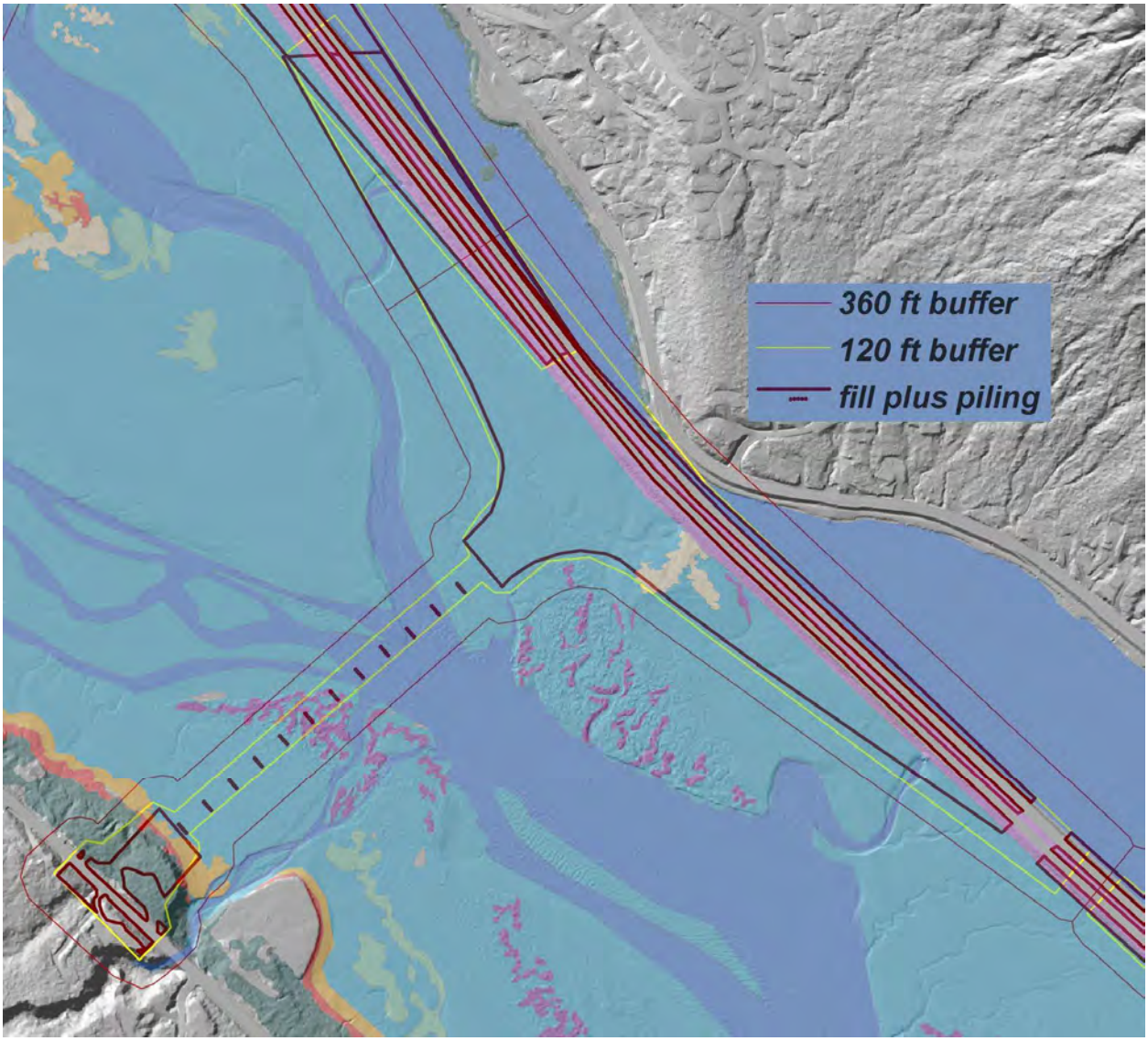
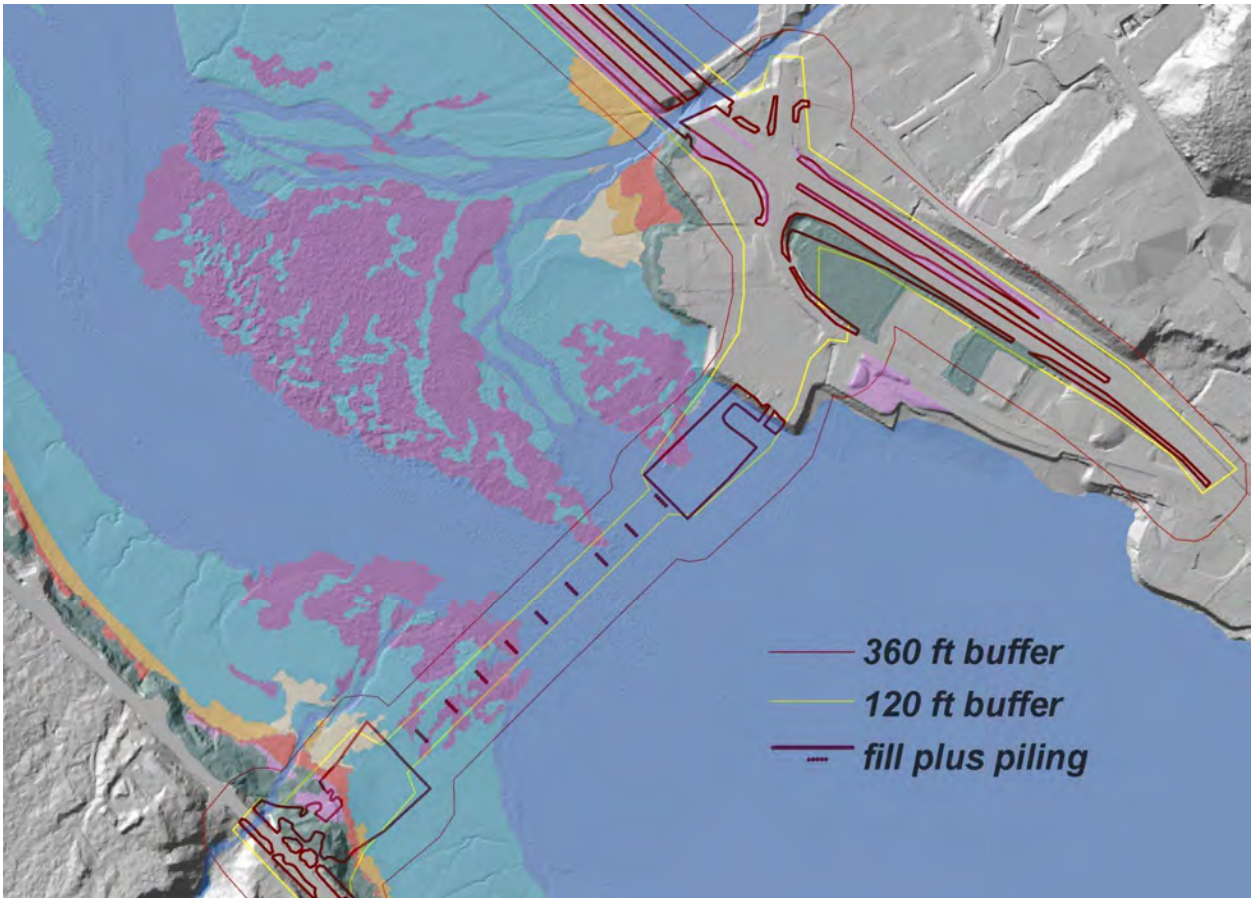


Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map



Impacts to Wetlands Owned and Stewarded by SEALT

All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.

It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.

The possible impacts from the most harmful remaining alternatives are summarized here.

Sunny Point East

The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

Sunny Point West

The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.

Salmon Creek

The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.

Mendenhall Peninsula

The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.

SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.

Impacts to Bird Habitat Not Considered by DOWL

All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.

Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.

It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.

The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.

The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.

The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.

The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.

The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.

It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.

For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.

eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.

"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.

Salmon Creek

The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck

hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.

Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the delta-edge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).

Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.

Twin Lakes

The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for

Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).

The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.

The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.

Vanderbilt

The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or "Pioneer") marsh, noted

above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).

The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).

The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this little-disturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).

The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area’s function as “refuge within the refuge” would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.

Sunny Point East, Sunny Point West

The Level 2 Screening bird habitat rating of the Sunny Point East alignment is “0” - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys,

but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).

The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.

The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.

In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.

At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at

Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).

With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.

Mendenhall Peninsula

The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Amstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.

Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.

It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud,

barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.

The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow's and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Red-breasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a "floating boundary."

To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).

To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as "second tier" hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually "top tier"), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).

On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a "top winter season hotspot" with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)

Miscellaneous Issues

Aviation Safety Resulting From Impacts to Bird Habitat

Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.

Impervious Surfaces

Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.

Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.

Public Support

DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:

- Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.

- From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.
- In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.
- It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.

DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.

Costs and Mitigation

Costs

DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.

1. Did these estimates consider repairs to the existing bridge?
2. How will maintenance change for existing roads on the mainland and Douglas Island?
3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates?
4. Did the estimates consider additional lanes for a new bridge as part of this?
5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?

Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.

Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.

Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.

Mitigation

The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.

As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.

SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate

criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.

While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.

However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report:

1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands.
2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly.
3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.

Conclusions and Recommendations

Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.

Outstanding Concerns

- The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.
- “Avoid, minimize, and mitigate negative impacts to the environment” should be a core goal of the PEL Study rather than an “additional goal”.
- The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without

vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.

- The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.

Additional Criteria

Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.

1. **"Low Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
2. **"High Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
3. **Fishing (Social)** - impacts to sport fishing according to ADF&G
4. **Hunting (Social)** - impacts to waterfowl hunting according to ADF&G
5. **Recreation (Social)** - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation
6. **Cultural Uses (Social)** - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests
7. **Aviation Approaches (Safety)** - impacts to aircraft approaches according to FAA
8. **Aviation Facilities (Safety)** - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA
9. **Navigability of Gastineau Channel (Safety)** - impacts to navigability for each alternative according to USCG
10. **Mitigation Site Replacement (ROW)** - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures
11. **Protected Lands Replacement (ROW)** - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures

Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini.

Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.

Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.

Ranking of Alternatives

The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.

1. No Build
    a. **All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex.**
    b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the far-reaching material impacts to those resources from bridge construction in a cost-benefit analysis.
    c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement.
    d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.
2. Salmon Creek
    a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points

b. Minimal functional impacts to SEALT mitigation sites
c. Fewer regulatory and permitting requirements for impacts to protected resources
d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek
e. Lower mitigation costs
f. Shortest intertidal crossing and use of existing interchange reduce impacts

3. Twin Lakes
    a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant
    b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources
    c. Would shut down important waterfowl hunting areas on the Refuge
    d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini
    e. Moderate to high mitigation costs
4. Vanderbilt
    a. More damaging to salt marsh, habitat connectivity, and Refuge integrity
    b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area
    c. Moderate functional impacts to SEALT mitigation sites
    d. Would shut down important waterfowl hunting areas on the Refuge
5. Mendenhall Peninsula
    a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex
    b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts
    c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.
6. Sunny Point West
    a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.

d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.

7. Sunny Point East
    a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.
    d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
    e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration.

Recommendations to PEL Study Team and Future Second Crossing Project Reviewers

- In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.
- The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.
- This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.

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Mendenhall Wetlands Study Group

Comments on the Level 2 Screening Results

for the

Juneau Douglas North Crossing PEL Study

April 10, 2024

Executive Summary

This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative.

Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation.

Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse.

The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge.

The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while deferring a rigorous analysis of anticipated environmental impacts to the NEPA process.

The Study Group agrees with DOWL's public statements that if a crossing is built, it should be a piling-supported rather than a solid-fill structure.

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Introduction

Study Group Qualifications

The Mendenhall Wetlands Study Group (MWSG) is a group of scientists and resource managers that was formed to provide review and expert advice to the PEL Study. The ad-hoc steering committee for the MWSG is composed of a former Alaska Department of Fish and Game (ADF&G) Commissioner, a former ADF&G Deputy Commissioner, a former ADF&G Director of Wildlife Conservation, and a former NOAA Fishery Research Biologist with forty years of experience in the study and management of Alaska salmon. The larger group is composed mainly of Fisheries Biologists, Wildlife Biologists, Conservation Biologists, Habitat Biologists, Habitat Mapping and Evaluation Specialists, Naturalists, and Natural Resource Managers. Many of the studies referenced in our January 30, 2023 Comments and Recommendations (Attachment 1) were conducted and written by members of our study group.

Mendenhall Wetlands State Game Refuge

We continue to stress the fact that the Mendenhall Wetlands constitute a uniquely productive and diverse ecosystem. Because of its 24-foot extreme tidal range and the variety of freshwater and glacial inputs, it contains diverse and complex habitats used by a wide variety of species. For example, 256 species of birds have been observed on the Wetlands. Further, the Wetlands have been recognized as a Globally Important Bird Area, a status achieved by habitats that support more than 1% of a species globally; the Mendenhall Wetlands IBA supports more than 1% of the international populations of 34 different species of birds. The Mendenhall Wetlands rank along with the Stikine Flats and the Yakutat Forelands as the most significant stopover points for shorebirds to rest and refuel on their long migrations through the region. Identified in the Alaska Shorebird Conservation Plan Vol. III (Alaska Shorebird Working Group, 2019) as a state and regional priority for habitat protection and management, the Mendenhall wetlands area hosts 16 of the 17 shorebird species of greatest conservation concern in Alaska and 11 more identified as stewardship priorities due to Alaska's share of the population. Alaska Shorebird Plan (VII) conservation priority species are adopted by reference and listed among Species of Greatest Conservation Need in the State of Alaska's 2015 Wildlife Action Plan.

International travelers using the area include Snow Geese from Russia and Greater Yellowlegs from Tierra Del Fuego among many others. Alaskan long distance migrants include many of the Mallards seen wintering on the Wetlands which travel to nest on the Yukon Delta. The Wetlands also provide a key wintering area for a large portion of the region's distinctive forest-nesting

goose population (Vancouver Canada Goose), with up to 700 using the Refuge's key salt marsh and slough habitats, including the proposed Sunny Point and Vanderbilt Creek alignments.

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates, and some mammals on the Juneau road system. Our January 30, 2023 comments included an extensive bibliography documenting the bird, fish, invertebrate, and wildlife resources on the Wetlands; it does not appear that this information was used in the PEL study. We again recommend it be used by DOWL and ADOT&PF in future analyses documenting the impacts of different crossing alternatives.

In recognition of these values and the need to conserve them, the Mendenhall Wetlands State Game Refuge (encompassing most, but not all of the Mendenhall Wetlands) was created in 1976, after more than a decade of citizen involvement. State and federal legislation require development projects within such special areas to take all measures to avoid, but also to minimize and mitigate effects upon refuge resources and uses.

As per state statutory responsibility , conditions for permitting should be specified to meet standards consistent with protection of fish and wildlife ,public use and resource use, with no adverse effect on fish and wildlife , their habitat , or public use as per 5AAC 95.430, as well as mitigation in accordance with 5AAC 95.430 and 5AAC 95.520. Nowhere in the planning has this been clear depicted or defined. Criteria enumerating and describing how the project will avoid, minimize, and mitigate impacts as per state statutes needs to be added and clearly defined.

Off-Refuge Crossing Priority

Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF **must** select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives.

Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive

areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.

Reference Actual Time Savings of All Alternatives

The Purpose and Need criterion of "Improving travel times" should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ's highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives.

The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF's travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.

Crossing Structures Limited to Elevated Structures

We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.

Re-scoring the DOWL Matrix

DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels.

First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.

Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.

Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).

The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and

viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.

The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.

1. Purpose and Needs:

Criterion: "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"

DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).

Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.

The alternatives should be re-scored to reflect the gradient of impact:
Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.

Scores for "Decrease Congestion Douglas Island Bridge/Intersections"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	+1	+1	+1	+1	+1	+1
MWSG	-1	0	0	+1	+2	+2

2. Additional Goals:

Criterion: "Avoid, minimize, and mitigate impacts to the environment"

DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.

A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key "environmental linkages" – the purpose of the Planning and Environmental Linkages (PEL) process.

Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).

Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL's choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek.

The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.

Scores for "Avoid, minimize, and mitigate impacts to the environment."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-2	-2	-2	-2
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: <u>"Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island"</u>

DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau's

Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.

Scores for "Maintain the visual, cultural, and scenic identity."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-1.5	-1.5	-1

3. Environmental Screening

Criterion: "Wetlands directly impacted"

DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for "impervious surfaces added", but is an incomplete description of the structures' impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.

Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL's acreage tally. DOWL's recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion

was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.

Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.

The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary.

Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.

Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.

Scores for "Wetlands Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-1	-2	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Intertidal zone directly impacted"

DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.

According to communications from the PEL team the wetland acreages were being tallied for all "wetlands and waters" jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL's acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected.

Scores for "Intertidal Zone Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	-1	-1	-2	-2	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "EFH (Essential Fish Habitat) Directly Affected"

As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion "Fish Habitat Affected". We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.

Scores for " Fish Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	0	0	-2	-2	-1
MWSG	-1	-2	-2	-2	-2	-1

Criterion: " Wildlife habitat directly impacted"

This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.

Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.

Scores for " Wildlife Habitat Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	0	-2	-1	0
MWSG	-2	-2	-2	-2	-1	-1

Criterion: "Important migratory bird habitat directly impacted"

Bird Habitat Impact Criteria & Rating Issues

Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.

DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly

nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.

The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.

eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.

We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations.

In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.

Sunny Point East and West

SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.

Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.

The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.

The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.

The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.

Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent

undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.

Mendenhall Peninsula

The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, *Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003* (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.

The Mendenhall Peninsula crossing alternative runs through the top bird "hotspot" at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as "first tier" for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these "first tier hotspots," representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).

Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge's "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The "Hotspots" authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two "second tier hotspots," the channels, rockweed beds, and tideflats

extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of “seasonal hotspot” f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.

Salmon Creek

The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 “top tier” refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).

On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.

Twin Lakes

Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting

season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt ("Pioneer") marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a "nearby hotspot" in the Hotspots report, important as a "refuge from the refuge" and for wildlife viewing (Armstrong et al., 2004).

The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a "second tier hotspot" and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.

Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.

Salmon Creek

The Twin and Vanderbilt impact areas overlap at Vanderbilt (or "Pioneer") marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered "nearby hotspots" (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.

The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt ("Pioneer") marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek's glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a

large tidal "island." Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a "refuge within the refuge" for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal "island."

The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).

We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area's role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.

In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.

References: Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003, Juneau Audubon Society and Taku Conservation Society, 2004. Juneau, AK.

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Scores for "Important Migratory Bird Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	-2	0	-1	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Section 4(f)/6(f) resources affected"

DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative.

Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.

Scores for "Section 4(f)/6(f) resources affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "Protected lands directly affected"

DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.

In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.

In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.

When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.

Scores for "Protected lands directly affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	-2	0	0	0
MWSG	-2	-2	-2	-1.5	-1	-0.5

Criterion: "Social"

This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.

DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.

ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.

The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.

Scores for "Social: Community Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	-1	0	-1
MWSG	-1	-2	-2	-1	-1	-1

Criterion: "Cost: Estimated Total Construction"

Because construction cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives at 0. DOWL has now provided estimated construction costs, and we have scored them to consider them in the ranking process.

DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.

MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.

Scores for "Estimated Total Construction Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	0	0	+2	+1	+1

Criterion: Cost: "Estimated Annual Maintenance"

Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.

Scores for "Estimated Annual Maintenance Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	-1	-1	+1	+2	+2

Summary of Scores

The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative.

Summary Table: Cumulative Scores for All Criteria
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-11	-8	-3	-10	-6	-14
MWSG	-23	–20	-17	-11	-6	-10.5

MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity:

Lowest Impacts	Twin Lakes	-6
	Salmon Creek	-10.5
↕	Vanderbilt	–11
	East Sunny Point	-17
	West Sunny Point	-20
Highest Impacts	Mendenhall Peninsula	-23

A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.

Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives.

The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.

The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.

If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.

The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: "1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation." The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis.

The National Transportation Act of 1966 provides instruction under Section 4(f):

"The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. **After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.**"

If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats.

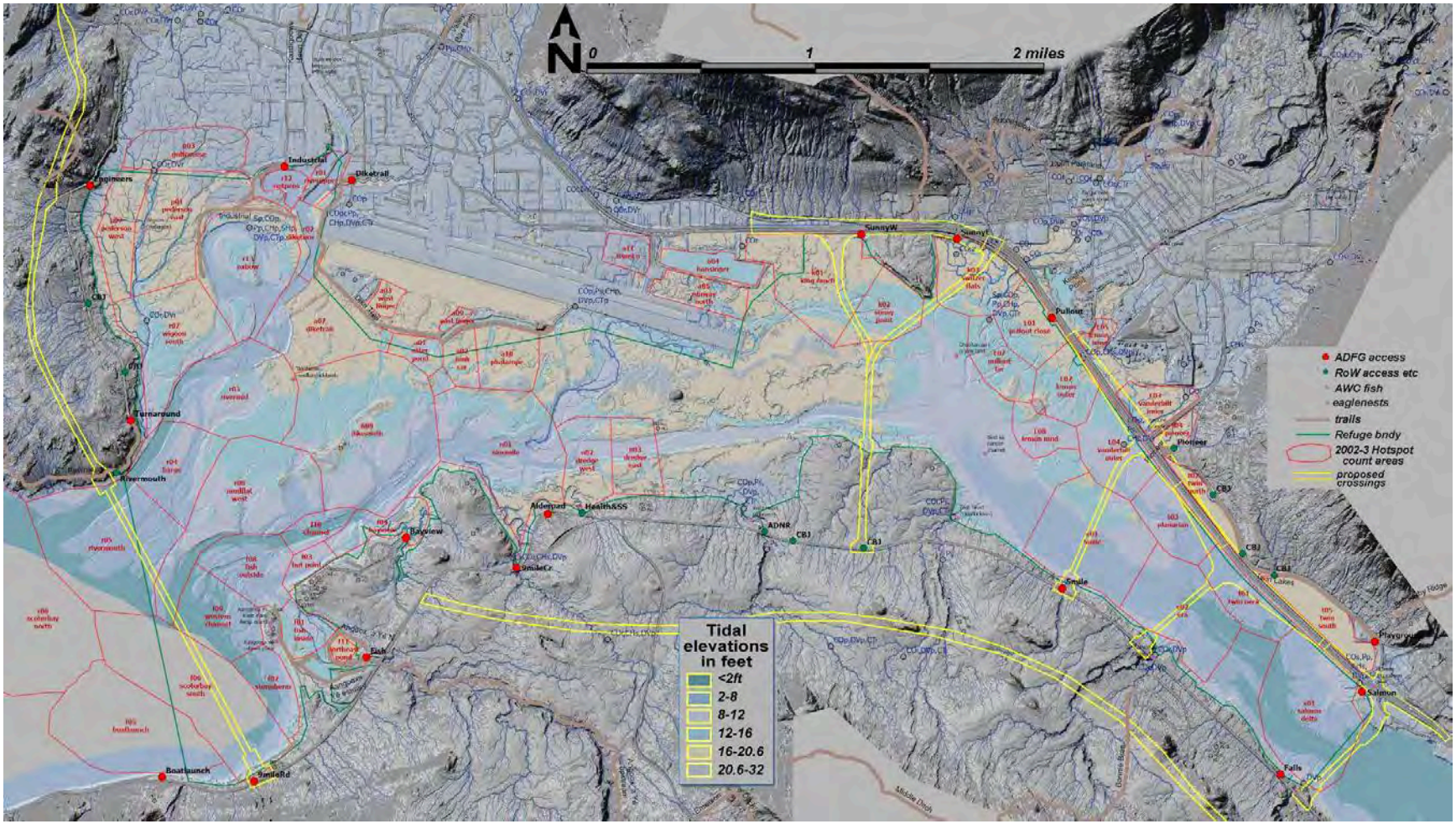
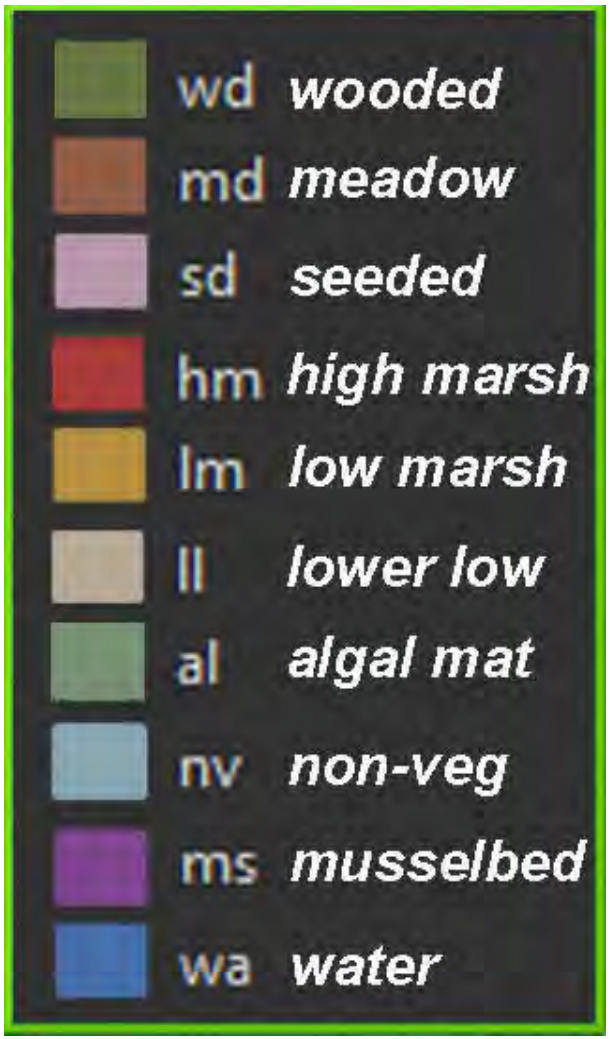
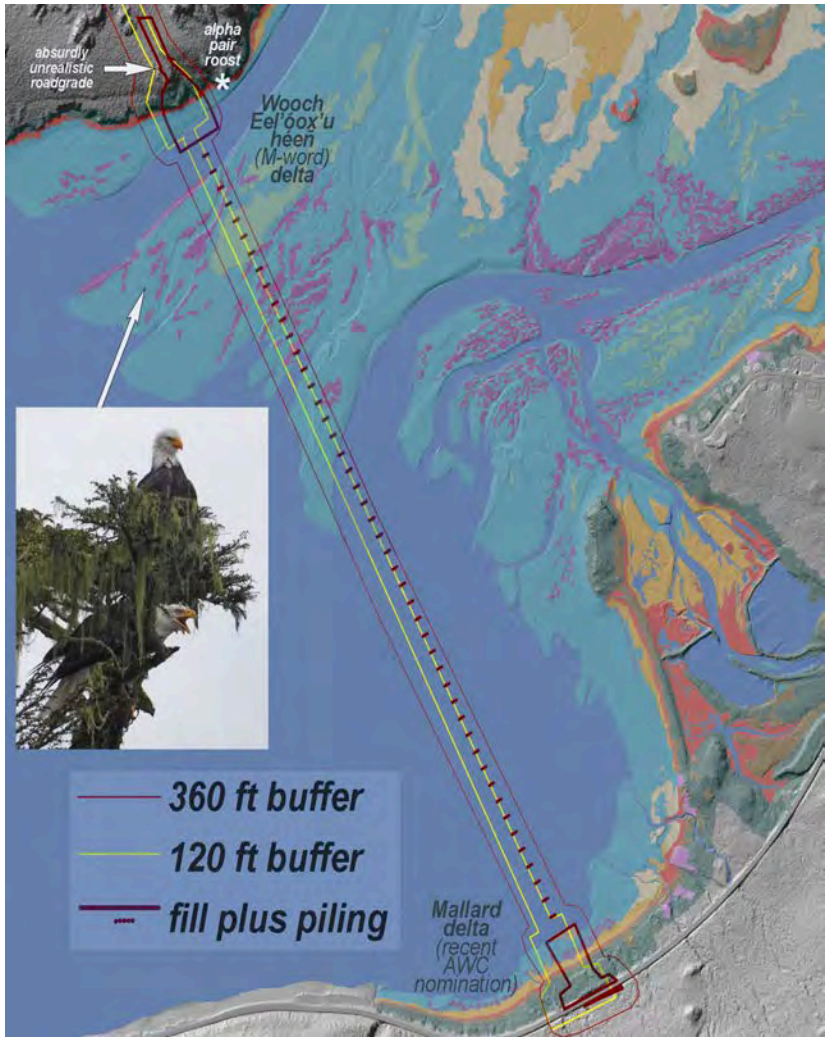

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AWC fish
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Refuge bndy
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proposed crossings
Tidal elevations in feet
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2-8
8-12
12-16
16-20.6
20.6-32
Industrial
Diketrail
Engineers
Turnaround
Rivermouth
Aldenpad
Health&SS
Bayview
SmileCr
ADNR
Fish
Boatlaunch
SmileRd
SunnyW
Pullout
Pioneer
Smile
Falls
Salmon

Figure 1.

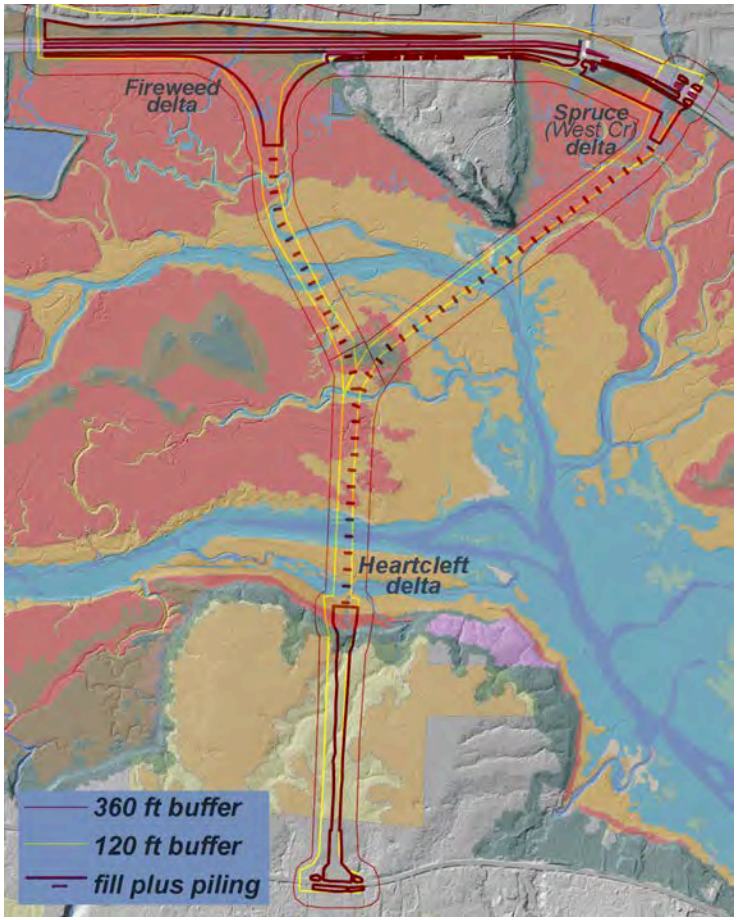
Map Key



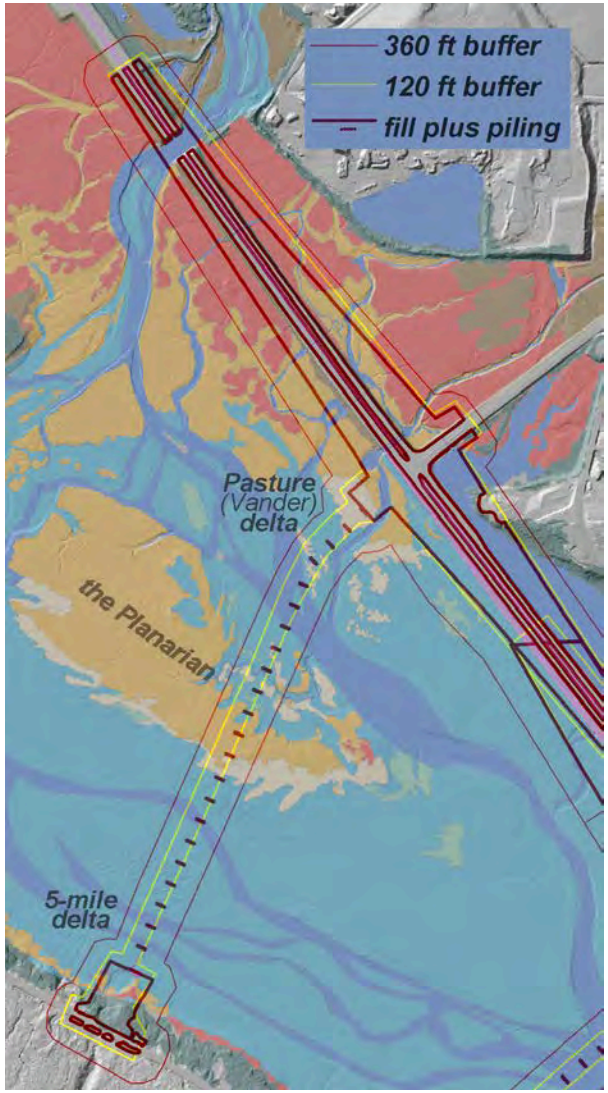
Mendenhall Peninsula



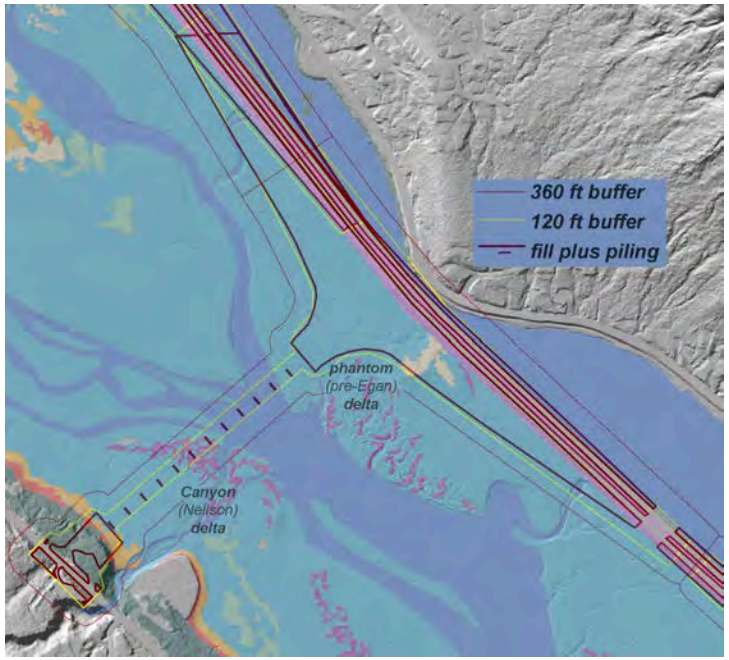
West & East Sunny Point



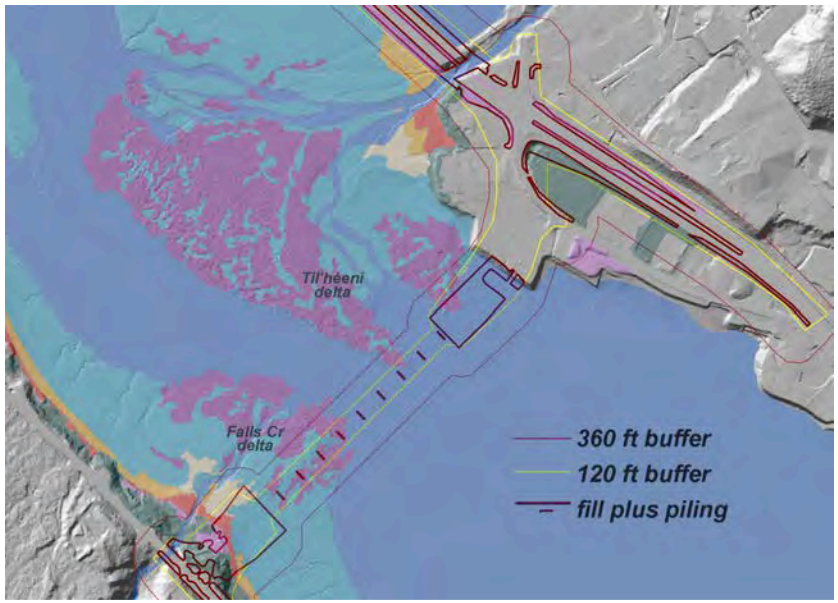
Vanderbilt



Twin Lakes



Salmon Creek



Attachment 1

Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department ofNatural Resources (Office ofHabitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending 9n the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment ... " and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden - Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden *(Salvelinus ma/ma)* in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery-Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance - On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus,* in Southeastern Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R.H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R.H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn-access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (0. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and KV. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL; http://www.ecologyandsociety.org/vol14/ issl/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Short-billed Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose *(Branta canadensis fulva),* which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards.** They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle--In** 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird-too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Hodges, J. I., and B. Conant 1986. Experimental Vancouver Canada Goose Survey-Northern Portion of Southeast Alaska. Waterfowl Investigations, U.S. Fish and Wildlife Service, Juneau, Alaska. 9 pp.

King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

Watson, S. 1979. Avian habitats and use of the Mendenhall Wetlands Wildlife Refuge, 30 April-30 June 1979. ADF&G unpublished report, Juneau, AK 28 pp.

Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles *(Microtus longicaudus)* are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long_ as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

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DEPARTMENT OF NATURAL RESOURCES *OFFICE OF HABITAT MANAGEMENT AND PERMITTING*
JUNEAU AREA OFFICE

22 December, 2003
Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Luk.shin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview
The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review ofDNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion *(366-045-84* and *366-122-84,* 11/8/85), addresses in detail the land management authorities ofDNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals *(Refuge Mgmt Plan 5 AAC 95.520):* "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--

*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm _boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700-760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not raking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.l 0) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of Sl,lbsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation."

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations

Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria

Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment

Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include :freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information

We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle

Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
Robin Willis, ADF&G, Anchorage
Wayne Dolezal, ADF&G, Anchorage
Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

Comment Number	Comment	Response	Commentor	Responder	PDF Page	Document	Location	Notes
1	Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores. We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).	Understood. A NEPA analysis would provide opportunity for more robust data collection. The PEL study is a planning level evaluation and assesses impacts based on publicly available data sources. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
2	The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.	The PEL study team has used the best available data and limited field studies to score the Level 2 screening.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
3	Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.	The SEALT wetland delineation is not publicly available. The PEL study team updated the wetland mapping to reflect current conditions, the resulting data is used in the Level 2 scoring.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
4	Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
5	SEALT mitigation property impacts – ensure these are accurate.	The PEL study team has reviewed the SEALT mitigation property impacts and confirmed the findings.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
6	Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)	EFH impacts were removed following the recommendation from NOAA Fisheries.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
7	Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.	A more detailed evaluation of impacts and fish habitat will be undertaken during a NEPA analysis.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
8	Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
9	Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process. The direct impacts will be clarified and buffers will be stated, when used.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
10	With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2. We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				

11	Potential categories for consideration: o PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.) o North Douglas Connection o Environmental impacts o Safety (include airport, Coast Guard) o Residential impacts o Visual, cultural, scenic identity o 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves) o Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves) o Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties) o Social impacts (add recreation impacts) o Cost o Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)	More detailed review of impacts would be undertaken during a NEPA analysis. The current impact categories have been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
12	Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.	Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
13	Negative scoring on No Build Alternative, and zero scoring on impacts. The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system. In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
14	A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.	A mapper of the alternatives and the environmental resource layers has been made publicly available.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
15	Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).	The Final PEL Study Report will reflect the structure types evaluated in the PEL study.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
16	Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.		Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
17	Please share all comments submitted by members of the Advisory Committees and the public.	The comments will be shared with the Level 2 Screening Memo	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
18	The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward. The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
19	We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.	The Final PEL Study Report will reflect the structure types evaluated and assumptions (such as pilings) made in the PEL study.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				

20	We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
21	As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
22	Salmon Creek scores + 1 point for transportation infrastructure resilience whereas the other options all score + 2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.	This criteria was removed from the Final Level 2 scoring.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
23	All of the alternatives score equally for decreasing traffic on the existing bridge, at + 1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.	These scores were updated to reflect the volume of vehicles that would choose an alternative crossing. Alternative that had a higher percentage to likely choose them now score higher under this criteria.	Michael Stanley, North Douglas Neighborhood Association	Renee			Purpose & Need	
24	Twin Lakes and Salmon Creek score + I for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure ... " Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.	These scores were updated to reflect that all alternatives except Mendenhall Peninsula would provide on average up to 65 second travel time savings (the largest time savings).	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
25	All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.	This score is based on the cumulative score of all environmental criteria (sum of scores in the "natural" category). Following edits to the scoring, this criteria was update to reflect the cumulative Final Level 2 scores for the natural environment.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Additional Goals	
26	The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 - meaning no adverse impacts - which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.	Indirect impacts will be reviewed in greater detail during a future NEPA evaluation. This PEL study is focused on evaluating direct impacts, while sometimes including buffers, for the planning and screening level analysis. The difference in scoring on the Vanderbilt and Salmon Creek crossings versus the Sunny Point alternatives reflects the focus on direct impacts.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Additional Goals	
27	Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to '"directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing- including air and noise pollution - were among those considered in the evaluation of crossing locations.	The differences in level of impact from for Sunny Point East and Sunny Point West are largely due to the intersection build out on the Egan side required for Sunny Point West. Sunny Point East would connect at an existing intersection requiring less of a build out for the intersection and therefore less ground disturbing impact. The PEL study team acknowledges indirect and cumulative impacts may exist for alternatives. Indirect and cumulative impacts would be evaluated during a NEPA analysis. Air and noise pollution would be evaluated during a NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	

28	Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
29	All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.	There are more 4(f) resources in the PEL study area than the MWSGR. Each resource was treated equally. The scores reflect the number of 4(f)/6(f) resources that each alternative directly impacts.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
30	The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.	The criteria listed in this comment as (1) and (2) are correct if a future project undergoes a 4(f) individual analysis. It is unclear what level of 4(f) analysis a future project would undergo, whether that be exception, de minimus, or individual analysis. Each level of analysis has differing criteria.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
31	The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association				Social Considerations	
32	One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.	Additional consideration of recreational use of the MWSGR and other park areas would be undertaken during a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Social Considerations	
33	These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The.first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.	There are various types of impacts that can occur to residential and commercial properties, as reflected in the scoring. The scoring differentiates between full or partial parcels counts and acreage amounts, and occupied or vacant land	Michael Stanley, North Douglas Neighborhood Association				Housing and Economic Considerations	
34	The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.		Michael Stanley, North Douglas Neighborhood Association				Safety	
35	More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.		Michael Stanley, North Douglas Neighborhood Association				Safety	

36	The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road: [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose. The Level II screening analysis failed to pay heed to this request.	The bench road concept is not considered in this analysis. It may be considered in a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association				Safety	
37	The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.	The public mapper provided by DOWL provides an opportunity for individuals to see where the alternatives are proposed to land on both the Juneau and Douglas sides of the study area. https://gis.dowl.com/portal/apps/instant/portfolio/index.html?appid=85cb7911192e4c7a94568f629f3aa9c0	Michael Stanley, North Douglas Neighborhood Association				Right-of-Way	
38	The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a fom1al survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.	Agree, and 'comments received' was an erroneous description of the measure of public support. The public support was based on an objective survey as described in the scoring table rationale.	Michael Stanley, North Douglas Neighborhood Association				Public Support	
39	NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas - much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau - but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.	Comment noted	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
40	I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel). I hope this helps when updating the EFH layer in this public-facing mapping tool.	This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study. I hope that my misunderstanding about the mapper does not lead you to think we didn't understand your overall messages.	Molly Zaleski, NOAA Fisheries	Theresa Dutchuk, DOWL			EFH - GIS Map	

41	The acreage is not correct. SEALT owns and manages wetland mitigation sites set aside for the Juneau Airport's expansion in 2009 that would be impacted by both the East and West Sunny Point alternatives at the Juneau and Douglas termini. She added that the Sunny Point West alternative does not avoid impacts and requires an additional extension of road parallel with Egan Drive that directly crosses a SEALT mitigation site. She has identified these impacts in two different comment letters, but DOWL's reports and scoring tables continue to assert that there are no impacts at Sunny Point West, and minimal impacts at Sunny Point East. She asked when a consultation will occur where SEALT can confirm the correct impact acreage.	The study team verified the acreages are correct.	Southeast Alaska Land Trust (SEALT)	Theresa Dutchuk, DOWL	6	TAC/STAC Virtual Meeting 5	1st paragraph	
42	Where were impacts for Salmon Creek quantified?	Steve responded that the impacts for all the alternatives are quantified in the documents that were distributed as part of Level 2 Screening in the impacts table. Renee added that the results in the impact table fed directly into the scoring process to enable scores to be assigned. Steve noted that the team would be happy to pull up the GIS database and have a conversation if there were additional questions.	Environmental Protection Agency (EPA)	Steve Noble, DOWL Renee Whitesell, DOWL	6	TAC/STAC Virtual Meeting 5	2nd paragraph	
43	She noted that mapping in the wildlife fish figure is misleading, stating that essential fish habitat text descriptions should be used to back up mapping. She commented that every alternative will impact fish habitat and additional study should be done on impacts to prey species, including herring, dolly varden, and trout. She would include a link in the chat with more resources for text descriptions and contact information. She would like early coordination to avoid data gaps.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	1st paragraph	
45	A disservice has been done to the Mendenhall Wetlands State Game Refuge (Refuge) by not displaying the boundaries in project materials.	The MWSGR boundaries have been added to project materials.	ADF&G	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	2nd paragraph	
46	Clarification on the acreages shown for the Sunny Point alternatives	N/A	ADF&G	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	6th paragraph	
47	Given the importance of estuarine wetland functions and the requirements for protection nationally, regionally, and in the setting of a public wildlife refuge, estuarine wetland acreage should be tallied separately. She stated both footprint within the displayed alignment strip and affected acreage beyond that (for example from drainage changes caused by fill, shading from a structure, or compaction and erosion from construction) should be included in the decision matrix, and that freshwater emergent and forested wetland acreage should be included separately. She noted it appears the Sunny Point alternatives potentially impact the highest acreage of estuarine wetlands, followed by Vanderbilt, and Sunny Point would also potentially impact the highest acreage of freshwater emergent palustrine wetlands. She asked why fill acreages are so different between East and West Sunny Point. She asked how tidal acreages were calculated, and why more was not measured at Sunny Point and Vanderbilt alternatives. She commented the wetland and resource acreage within the reports seem inconsistent the best data available. She added 4(f) resources affected should be reported by acreage within the alignment strip displayed, and there should be consideration of effects on 4(f) resources outside the displayed alignment strip. She continued that this should include the size of the overall 4(f) and the location of the disrupted area within it, noting that crossing through the center of a large refuge affects more users and more wildlife. She stated the PEL study report titled "Wetlands Delineation and Functional Assessment Report" does not include any functional assessments, and the delineations are not complete. She commented that the report leans heavily on NWI to fill in gaps in the surveys, which is unreliable for Alaska. She asked when DOWL was planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan, and what protocol would be used.	Wetland functions and values have been added to the Level 2 Screening.	SEALT	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	Last paragraph page 7, first paragraph page 8	
48	Both Sunny Point alternatives are underestimating impacts to essential fish habitat because of the way that metric was calculated	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa Dutchuk, DOWL	8	TAC/STAC Virtual Meeting 5	2nd paragraph	
49	Is the table showing public support and comments received for each alternative was depicting the number of comments in favor of the alternative, number of comments opposed, or comments generally?	The public support measure is the number of survey respondents who indicated supported for alternatives from the public comment survey sent out after Open House No. 2. Over 1,000 people responded to that survey, and participants were able to indicate support for more than one alternative	CBJ Assembly	Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	3rd paragraph	
50	Clarification on the definitions for wildlife habitat in environmental screening and important migratory bird habitat.	At the recommendation of the DOT&PF Statewide Environmental Office, "important migratory bird habitat" has been changed to reflect within the boundaries of the refuge. Wildlife habitat is classified as anywhere wildlife may be.	ADF&G		8	TAC/STAC Virtual Meeting 5	4th paragraph	

51	If there have been conversations about how criteria are weighted during scoring, including more qualitative information. She noted there are five criteria related to residential impacts and one criterion related to safety, which infers that residential impacts would be weighted more heavily than safety.	The study team worked through the screening criteria and presented it to the advisory committees, the DOT&PF Statewide Environmental Office (SEO), and other agencies throughout the process. He added screening criteria has been adjusted based on feedback and encouraged further feedback from participants. He noted there are more environmental criteria than other criteria. Renee added the scoring evaluation process will help the team recommend which alternatives could move forward into the NEPA process, and there are a lot of environmental impacts that need to be considered for each of the alternatives. She also encourages feedback from participants on improvements to scoring criteria.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	5th paragraph	
52	It would be helpful to score recreational impacts, especially hunting. Steve responded	The project team has incorporated recreational impacts into scoring. Renee added she would find more specific information.	ADF&G	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	6th paragraph	
53	Transparently scoring different categories (e.g. environmental, residential, safety, traffic improvements, etc.) individually would be helpful	Unclear on this comment. The PEL study team has scored categories individually and provided scores and justifications/rationale to provide transparency on the thought process.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	7th paragraph	
54	Why aviation safety is not listed as criteria under transportation safety, noting that if aviation safety is important, it merits a score?	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	SEALT	Steve Noble, DOWL	8	TAC/STAC Virtual Meeting 5	8th paragraph	
55	The difference between the approaches and the bridge structures shown in the footprints on the maps and asked for clarification on how far out into the wetlands the approaches would extend.	The approaches are in the abutments, and the issue would need to be evaluated in more detail in the NEPA process.	Mendenhall Wetlands Study Group	Steve Noble, DOWL	8	TAC/STAC Virtual Meeting 5	Last paragraph page 8, first paragraph page 9	
56	A publicly available online mapping tool with all the data layers and alternative structure footprints would be very helpful for the advisory committees and public to review these scores and think about impacts more wholistically. She noted difficulty in comparing different PDF maps with spatial data. Steve responded the study team would review and discuss the feasibility of this within the timeline.	The study team would review and discuss the feasibility of this within the timeline.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL	9	TAC/STAC Virtual Meeting 5	3rd paragraph	
57	Essential fish habitat (EFH) is not typically used in and of itself as an acreage metric and does not fit in the way it was used to compare alternatives using acres, rather it is a qualitative presence/absence of EFH species combined with a determination of adverse effects. She added in the analyses of adverse impact, the wetlands and anadromous waters are themselves and more broadly support EFH are sought to be avoided, minimized, and compensated for in their acreage impact. She noted that each alternative adversely impacts EFH and the relative impact as defined by acreage would be more accurately defined by wetland and riparian impact. Further, the quality of that impact would be higher for example, for estuarine wetland fill, as they are functionally more supportive of EFH than forested wetlands.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa	7	TAC/STAC Virtual Meeting 5	1st paragraph	
58	One participant from the EPA asked if the project team could speak to the 4(f) process.	The purposes of the PEL study, the team identifies what the 4(f) properties are, what they think the potential impacts to 4(f) resources could be and determines if there are ways to avoid or minimize impacts to those resources. He added 4(f) permitting would happen during the NEPA process.	Environmental Protection Agency (EPA)	Steve Noble, DOWL	9	TAC/STAC Virtual Meeting 5	4th paragraph	
59	When the PEL study was expected to be completed and opportunities to comment?	The draft PEL study report was expected to be completed by the end of May 2024, followed by a 30-day comment period and a public open house in June 2024.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Public involvement	
60	how are potential impacts are calculated?	Most potential impacts are measured by acreage and number of resources potentially impacted.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Environmental Considerations	
61	A participant requested information on the type of crossings evaluated being fill versus piling. Steve shared	The study design team assumed crossings on pilings based on feedback received so far and clarified the scoring is premised on this type of crossing structure.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Construction and Design	
62	One participant asked where the newly located Bog/Fen was.	The project team responded that it was shown as the hatched area on habitat mapping.	no name	Project Team	6	In person TAC/STAC meeting 5	Wetlands	
63	One participant asked for clarification on how information gathered during habitat mapping and migratory bird count helps supplement existing data. He emphasized that the report was well written, and the habitat mapping added useful data, but the information presented on bird species presence should not be considered useful as the time window of observation was inappropriately brief. He added this part of the study wasted time and money. A participant asked for clarification on how the data collected during the additional studies would be used.	The study team has tried to include as much data as possible and acknowledged the limited scope of data collection due to this being a planning-level study. The data is supplemental to the existing data collected during the baseline, largely confirming and augmenting that data.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Migratory Bird Habitat	
64	One participant expressed concern about how data was weighted during scoring. Steve responded the data sets are maps, with each set of data adding a quantitative map to the database of information.	He noted more specific data is needed to make design decisions, which will happen in the NEPA process. He invited participants to follow up for individual explanations of how data is weighted in the scoring criteria.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Environmental Considerations	

65	One participant noted Southeast Alaska Land Trust (SEALT) and the Alaska Department of Fish and Game (ADF&G) are currently working on a comprehensive habitat remapping, expressing concern this data would not be included.	The PEL study team has used publicly available data and limited field studies to score the Level 2 screening. If data is not publicly available, the data has not been included.	no name	Project Team	7	In person TAC/STAC meeting 5	Wetlands, Protected Lands	
66	One participant commented they are concerned about alternatives being eliminated based on the narrow scope of the corridor.	Minor changes to the alternatives may still be made during the planning-level design process, and the scale of the areas surrounding each alternative are not being ignored in criteria evaluation.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Environmental Considerations, Design	
67	A participant expressed concerns the criteria lacked a mechanism to score potential impacts to undisturbed lands in relation to each alternative.	Undisturbed lands, such as vacant lands, have been considered when quantifying impacts.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations, Design	
68	One participant expressed concern about the assignment of values for each criterion, noting focus on the relative environmental impact scores for Vanderbilt and both Sunny Point alternatives.	The project team responded the criteria need to be quantified to be compared. Specific value assignments are open for explanation and feedback for criteria. The study team requested participants to send written comments and questions, noting small group meeting will be set up to answer questions and receive feedback about environmental impact ratings.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations	
69	One participant requested clarification on the buffer zone around each alternative.	The study team responded buffer zones vary based on alignment and scoring criteria. In general, 100 to 200 feet is used for environmental impact analysis.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations	
70	One participant commented geophysical data should be used as a direct criterion in the alternative matrix.	The project team responded the results of the geophysical data cannot be quantified as a single value, but the data will impact other criteria such as the cost needed for different construction methods based on varying surface and subsurface conditions.	no name	Project Team	7	In person TAC/STAC meeting 5	Geophysical	
71	One participant commented the public should have access to information about the airport's plans and potential conflicts, stating any conflict with the airport should be a criterion.	The airport is currently developing a new master plan, which will indicate long-term plans and potential conflicts, affirming no option will be considered that conflicts with the airport's current or future aircraft approach plans. DOWL has conducted meetings with the airport and the Federal Aviation Administration (FAA) to gather information on airport priorities and plans.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Airport	
72	One participant asked how essential fish habitat (EFH) is defined, noting EFH is too broad of a term to be used as criterion.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	no name	Project Team	7	In person TAC/STAC meeting 5	Essential Fish Habitat	
73	One participant expressed concern about using the criterion of public support in scoring, noting the Refuge was not shown on the study area and alternatives maps early in the PEL study. This could have significantly impacted the results of public support for alternatives enough to discount the results.	Public support was scored according to the responses to a 2022 survey. Additional public outreach would be undertaken during a NEPA analysis.	no name	Project Team	7	In person TAC/STAC meeting 5	Public involvement	
74	One participant asked what qualifies an area as a wildlife habitat or a fish habitat.	Wildlife habitat is any habitat home to wildlife species, fish habitat is non-terrestrial habitat. Intertidal is habitat to both terrestrial and non-terrestrial species.	no name	Project Team	8	In person TAC/STAC meeting 5	Essential Fish Habitat, Wildlife Habitat	
75	One participant asked if the Coast Guard supports any of the alternatives.	It is too early in the process to get a definitive answer, but that the Salmon Creek alternative is the least flexible of the options in terms of proximity to navigable waters. The two options have been developed at different elevations based on height restrictions from the Coast Guard.	no name	Project Team	8	In person TAC/STAC meeting 5	Navigable Waters	
76	One participant asked why the cost estimate for the Salmon Creek alternative is higher for a relatively short span.	The specific breakdown of cost analysis can be discussed in further detail, as estimates were only recently determined and will be published in the future. Generally the price per foot of bridge can vary widely depending on span and abutment construction details.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction Costs	
77	One participant asked why the proposal for the Mendenhall Peninsula alternative includes the construction of a new road rather than tying it into the existing roads.	Residents on the Mendenhall Peninsula commented repeatedly the disturbance caused by development tying into existing roads would be significantly more impactful than the construction of a new road.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction and Design	
78	A participant commented the criteria to include impacts to commercial property and impacts within 100 feet of commercial property are redundant. Renee requested participants submit written comments on criteria.	The PEL Study Team acknowledges that there are redundancies in scoring, particularly with impacts to the refuge and housing and economic criteria.		Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Commerical	
79	One participant expressed concern the study is being crafted to downgrade the Salmon Creek alternative to make the process of proving there are no viable alternatives outside the Refuge easier.	No alternatives are being up- or downgraded, but the criteria were created without knowing the scoring outcomes. The only interest is moving forward with alternatives that will not present fatal flaws later in the process.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	NEPA	
80	One participant asked if NEPA will reevaluate the environmental impact.	NEPA will evaluate all viable options at a deeper level as required by law.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	NEPA	
81	One participant asked what the cost of the higher elevation option would be at Salmon Creek.	The cost for the Salmon Creek alternative at a higher elevation has not been estimated.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction Costs	
82	Several participants commented they would like to see the Salmon Creek alternative continue into the NEPA process as it is the only remaining off Refuge alternative.	N/A			8	In person TAC/STAC meeting 5	NEPA	
83	One participant expressed concerns about longevity of the Salmon Creek Dam, and the need for a barge landing area, which would both be affected be the Salmon Creek alternative.	He noted the high cost of living in Juneau is affected by barging costs. The project team responded a barge landing study had not been conducted.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Cost of living	

84	One participant asked if ROW acquisition costs have been included in the evaluation.	The project team responded no; they did not want to inadvertently affect property values in these areas due to gathering data about potential acquisition values.	no name	Project Team	8	in person TAC/STAC meeting 5	Right-of-way	
85	One participant asked about the funding source for this project for construction and maintenance costs.	The project team responded the DOT&PF will be looking into grants for the construction phase of this project, in addition to STIP funding. Maintenance costs will involve CBJ.	no name	Project Team	8	in person TAC/STAC meeting 5	Construction Costs	
86	Why isn't the Refuge Management Plan, specifically regarding hunting and recreation, not noted in the scoring matrix?	Recreation and hunting are grouped into section 4(f) category, in addition to being delineated into habitat impacts. Theresa showed where Section 4(f) was noted on the scoring matrix.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 1	
87	Will the public understand that hunting and recreation opportunities are part of 4(f)?	There will be two additional narratives coming out: 1. Narrative of the Level 2 Screening results to provide further detail on the impact categories. 2. PEL Study, which will go out to the public for comment before it is finalized.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 2	
88	Why was there so little field work done prior to scoring?	Originally the study team used the extensive pool of baseline data for documentation but heard from agencies and the public that more data was wanted, particularly regarding birds in the Refuge. The team realizes more research will be needed in the NEPA process. The scoring criteria is based on existing data, and supplemented with the field work that was conducted.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 3	
89	Why do the Sunny Point alternatives not show the most impact?	The interchanges that are being proposed for each alternative affect the quantity of impacts.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 4	
90	How does the study team define important migratory bird habitat and wildlife habitat?	Wildlife habitat was mostly mapped by vegetation and aerial signatures, and the species that would use that habitat were inferred by the habitat types that were identified. Important bird habitat was mapped by digitized hotspots with a 500-foot buffer.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 5	
91	Can the comments submitted to the PEL Study be made available to the public?	Theresa will check with the project communications group on if the PEL study report would include a public log of comments. Comments received are adjudicated.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 6	
92	Will the NEPA process include all current alternatives, or will some be eliminated before then?	Scoring will affect the answer to that question, to be determined.	Jesse Lindgren, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 7	
93	What is the acreage difference between Sunny Point East and West?	Sunny Point West would add 32.2 acres of impervious surfaces, while Sunny Point East would add 7.9 acres of impervious surfaces.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 8	
94	Does the impact table with values feeds into the scoring matrix?	Yes	Jesse Lindgren, ADF&G	Theresa Dutchuk, DOWL	4	ADF&G 031924 Summary	Row 9	
95	Sue requested the GIS mapper be made available to the public, and the Refuge be shown on the map.	A GIS Mapper including the refuge boundary has been made publicly available.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	2	ADF&G 031924 Summary	2nd to last sentence	
96	The limited timeframe of the Bird and Habitat Surveys conducted in September 2023 provide a limited information. How will this information be used?	These surveys conducted to supplement the 15 or more desktop resources used for baseline mapping, including the Audubon Society eBird, hotspots from the Armstrong 2004, and the resources from the 2005 draft Environmental Impact Statement (EIS). Additional data quantifying bird populations would be required and occur during the National Environmental Policy Act (NEPA) phase of a potential future project, during the cumulative analysis.	Winston Smith	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 1	
97	Will lack of public support for alternatives lead to elimination in level 2 screening?	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Winston Smith	Mike Hall, Parametrix	4	Juneau Audubon 032024 Summary	Row 2	
98	How will public perception that bird surveys are complete be managed?	This fieldwork is supplemental and limited, and future fieldwork necessary to determine a preferred alternative under the NEPA process.	Winston Smith	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 3	
99	Why would the Salmon Creek alternative, one of the shortest crossings, not be the least expensive and potentially one of the most expensive?	This question requires engineers to answer.	Winston Smith		4	Juneau Audubon 032024 Summary	Row 4	
100	What happens next?	The study team is collecting advisory committee comments through April 11, 2024, based on expertise and environmental knowledge. The draft PEL study report would be available later in May 2024 and provide an opportunity for public comment, with a public meeting in June 2024.	Gwen Baluss	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 5	
101	Have improvements to the existing bridge been considered?	This alternative had been considered and dismissed in level 1 screening as it did not meet the purpose and need.	Gwen Baluss	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 6	
102	Have improvements to the Douglas Highway or a new road to handle additional traffic been considered?	The preliminary engineering shows the tie in of each alternative to the Douglas Highway. Douglas Highway improvements and additional roads not directly related to a crossing are not covered by this PEL study.	Brenda Wright	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 7	

103	Would structures under consideration be piles or levies?	The Refuge Management Plan required structures on piles, and consistent comments have requested alternatives considered be on piles. Additional engineering would take place during the NEPA process.	Brenda Wright	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 8	
104	Is the North Airport alternative still being considered?	This alternative was eliminated in Level 1 screening.	Brenda Wright	Theresa Dutchuk, DOWL	5	Juneau Audubon 032024 Summary	Row 9	
105	Will the GIS mapping be made publicly available?	The study team is actively working to get a public-facing GIS mapper available on the study website. (Completed 4/2/2024).	Gwen Baluss	Theresa Dutchuk, DOWL	5	Juneau Audubon 032024 Summary	Row 10	
106	Have you had a small meeting with the Mendenhall Wetlands Study Group folks?	An invitation to meet was extended to the Mendenhall Wetlands Study Group.	Michael Stanley	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 1	
107	How do the Sunny Point alternatives have no impact to wildlife?	The study team tried to rate rank impacts in a quantifiable way, with direct acreage impacted. Indirect impacts would be assessed during the NEPA process.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 2	
108	How are there only 2 acres of impact for the intertidal zone for the Sunny Point alternatives, and where are those two acres located?	For Sunny Point East, the piles are included in the two acres, as well as the abutment and on the north side too. That's the quantification, and that's how we've provided the numbers.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 3	
109	How is the whole Sunny Point area not considered intertidal impact?	Because structures considered are elevated, impacts to intertidal zones are indirect and will be considered in the future NEPA process.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 4	
110	What natural disaster could affect both the existing bridge and Salmon Creek alternative?	Historical hazard data indicated landslides as a potential natural disaster that could impact the existing bridge and the Salmon Creek alternative.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 5	
111	Whose travel times would improve for the Salmon Creek alternative versus those crossing the middle of the refuge?	The Bridge Volume Forecast Memo notes travel time is significantly improved for users at the Mendenhall Peninsula alternative, though fewer users would divert to this alternative, than for Salmon Creek, though more users would divert to this alternative.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 6	
112	The residential scoring between Twin Lakes (0) and Salmon Creek (-2) seems skewed: no residences are located on the mainland side for either the alternative. What are the residential impacts for the Douglas Island termini for the Twin Lakes and Salmon Creek alternatives?	The scoring was based on number of land acquisitions needed and parcels impacted, which Salmon Creek had seven parcels impacted, and Twin Lakes had zero.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 7	
113	Why is acquisition of properties also scored as right of way?	Right of way is all rights of way, whether residential or commercial.	Julie Berdarski	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 8	
114	How is the public support criterion measured?	This criterion is measured using data from a survey conducted following Open House No. 2, from December 2022 to February 2023.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 9	
115	Provide alternative access and transportation - infrastructure resilience. This is not a measure for Level 2 Screening (only Level 1 - see methodology). Please remove.	Will Remove	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Provide alternative access and transportation"	Removed from Table
116	Bridge Volume Forecast Memo states that different percentages of exiting traffic will choose the different crossing locations. Answers should be updated to reflect that a higher percentage would use the Salmon Creek or Twin Lakes alternatives than Mendenhall or the Sunny Point alternatives and would therefore have a more significant improvement. Is it based on data for each individual location? Please share the data and maps the draft numbers are based on.	Will update the scores to reflect percentage of users who will choose each option. The data is based on groupings of alternatives. Please clarify the data needed, the backup mathematical calculations? Please clarify what maps you would like to see.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Decrease traffic congestion"	Updated to reflect Twin Lakes and Salmon Creek see the most traffic (and therefore provide the largest decrease in pressure on the existing birdge). Changed Twin Lakes and Salmon Creek to +2, Vanderbilt and Sunny Point options show a medium decrease in traffic pressure (scored 0) and Mendenhall Peninsula provides the least decrease in traffic pressure (scored -2). All scores are according to the Feb 13, 2024 Bridge Volume Forecast Memo
117	Please share the data and maps the draft numbers are based on. Is it based on data for each individual location/alternative?	There is no data or maps associated with this criteria. Locations of emergency services are publicly available online and provided the basis for the determinations. The scoring is based on each individual location.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Emergency response time"	No Change
118	Please share the data and maps the draft numbers are based on. Is it based on data for each individual location/alternative?	The travel time improvements are available in Table 2 of the Bridge Volume Forecast Memo. Please clarify what data and maps are needed.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Improve Travel Time"	Revised scores to show all alternatives except Mendenhall Peninsula have up to 65 seconds travel time improvement (scored +2). Mendenhall Peninsula revised to show less improvement than the other alternatives (scored 0). All scores are according to the Feb 13, 2024 Bridge Volume Forecast Memo.

119	The measure for the "Additional Goals" was high/medium/low (see methodology). The Additional Goals should not be weighted equally to the P&N or the "other considerations".	The approved screening criteria memo/methodology (June 5, 2023) states that criteria will be scored +2 to -2. We see the old memo (February 17, 2023) is erroneously still posted on the website and shows high/medium/low for additional goals. Please advise	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals	No Change. Scores based on June 5, 2023 scoring memo/methodology. Updated methodology posted on website to approved June 2023 version.
120	All alternatives meet this goal equally and travel times are considered in a different measure and should not weigh in here. Update answers	Will update to score all build alternatives equally.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Improve Connection"	Revised score of Mendenhall Peninsula to +2 consistent with the score of the other alternatives.
121	This is misleading. Not all alternatives have equal impacts to the environment. Salmon Creek has the least impact on refuge resources (per ADF&G). Please update and share the data and maps the draft numbers are based on.	This score is based on the cumulative score of all environmental criteria (sum of scores in the "natural" category). The scores range from -8 to -15, please advise for the correct threshold for scoring between -1 and -2. For data and maps, please refer to the baseline maps and memos. https://www.jdnorthcrossing.com/documents.html	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	The natural environment scores were re-calculated following all revisions in response to comments. Scores show updated calculations for cumulative scores per alternative of the natural environment criteria.
122	Sunny Point West and East should be -2. They are much longer than other alternatives, bisect the refuge and adjacent to hunting, birding, and other recreation.	Please clarify why length is the measurement parameter for visual, cultural, and scenic identity. Will update according to discussion.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Maintain the visual, cultural, and scenic identity"	Revised scoring to show Sunny Point Alternatives as -2.
123	Should be linear feet and not acres - SEO and agencies made that comment previously. Sunny Point East has multiple small anadromous streams containing spawning and rearing salmon habitat (per ADF&G). Please update and share the data and maps the draft numbers are based on.	EFH was removed at the request of NOAA Fisheries. Stream and riparian habitat will be measured in linear feet. Will update the approved screening memo which states acreage, to state linear feet. Please refer to the baseline maps and memos for data.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Stream and riparian habitats AND EFH"	
124	This measure is listed in the methodology. Why was it taken out?	Wetland values was not readily available information, but information pertaining to this criteria were sought by completing field surveys of wetlands (2023). This criteria will be updated when the functions and values are finalized.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "High Value Wetlands directly affected"	
125	Please explain how Sunny Point East would only impact 1.3 acres of wetlands. The Douglas connection at Hendrickson Point is wetlands and will likely require a large amount of fill. Consider construction impacts. Consider stormwater runoff including winter road maintenance and other pollutants. Update and revise this scoring.	Sunny Point East ground disturbing footprint as measured against mapped wetlands results in 1.3 acres. A team of professional wetland scientists revised the mapping of Hendrickson point and the quantification of impacts to wetlands of Hendrickson Point is included in the Sunny Point alternatives. Regarding the amount of fill at Hendrickson Point, the cut/fill was evaluated by professional engineers and was calculated in the total impacts to wetlands. Please see the GIS mapper for the differences in footprint between Sunny Point East compared to the other alternatives. Indirect and temporary construction impacts are not known at this time. Please advise and provide sources on how to incorporate winter road maintenance and other pollutants. The study team cannot identify updates needed to scoring.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Wetlands directly affected"	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact wetlands in the MWSGR and therefore score -2.
126	Sunny Point West and East have large impacts to wildlife habitat - within the Refuge and on Hendricksen Point. Impacts to Hendricksen Point was not considered in the scoring. The construction impacts as well as the permanent impacts of the alternatives including maintenance impacts to protected lands (stormwater runoff, salt in winter, etc.), noise impacts to habitat, light impacts, etc.) that impact wildlife habitat should be considered. Hendricksen Point is an important wildlife access point to the refuge, a nesting location for Greater Yellowlegs, etc. Sunny Point East also has impacts to fish (per ADF&G). Please share the data and maps the draft numbers are based on. Impacts go beyond just fill.	Impacts to Hendrickson Point were considered for impacts to wildlife habitat. The entire point is considered habitat and the impacts were quantified. Considerations such as stormwater runoff and use of salt are outside the scope of this planning document and will be addressed in a future NEPA review. Noise impacts and light impacts to habitat would require additional studies and are outside the scope of this planning study; noise and light impacts are particularly challenging to quantify in acres per the scoring criteria. Impacts beyond direct fill are outside the scope of this planning study and would be addressed during a future NEPA review.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Wildlife habitat directly affected"	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact habitat in the MWSGR and therefore score -2.

127	Should be acres of important habitat used by migratory birds (migrating and residents) and not nesting locations (see methodology). ADF&G shared a map with "important bird areas" in February - which is the whole refuge and some surrounding areas. The construction impacts as well as the permanent impacts of the alternatives (noise impacts to habitat, light impacts etc.) that impact important bird areas should be considered. Please share the data and maps the draft numbers are based on.	ADF&G's provided "important" habitat is one measure of importance. Can the PEL study team confirm that the jurisdictional agency, USFWS, considers outside of the refuge to be "not important"? Please see the published GIS mapper for locations of eBird hotspots from which the data is based.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Migratory Bird Habitat	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact habitat in the MWSGR and therefore score -2. Because Mendenhall Peninsula partially impacts the refuge is scores -1 and due to Salmon Creek's adjacency it scores -1, per SEO recommendation.
128	Should consider all protected lands (see methodology) which includes the Refuge and impacts on Hendricksen Point (see land designation map created for the PEL study) which is a designated, protected conservation area. Please share the data and maps the draft numbers are based on	Will update protected lands to will include refuge, SEALT, and any other conservation easements. Hendrickson Point is zoned as residential. The comprehensive plan shows Hendrickson Point as Conservation Area, however it is currently zoned as residential and is not set aside specifically for conservation purposes.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Protected Lands"	Updated to reflect acreage of impact to SEALT land, MWSGR, and Hendrickson Point. Re-scored based on updated acreages.
129	This should be a separate category as it is a principle driver of alternative selection. Five of the proposed alternatives have a 4f use, one does not. Scoring should reflect the importance of the "use determination". Hendricksen Point might be a 4f resource. There is a mapped wetland access point	All six alternatives have a 4(f) use, all six use the refuge. Section 4(f) is its own category, would the recommendation be to move it out of environmental resources? Final determination of 4(f) resources (Hendrickson Point) will be made during NEPA through consultation with the OWJ (CBJ) and SEO. Because Hendrickson Point is zoned as residential and is not a designated park or recreation land, wildlife or waterfowl refuge, there is substantial question as to whether is will be considered 4(f) or not. The determination will be up to the OWJ. Should the study team reach out to CBJ for an initial take on whether or not they believe the property is significant? According to the Comprehensive Plan, the designation conservation area may imply park, recreation, or natural area. Natural areas are not considered 4(f) and considering the recent Attorney General determination that Helen Louise McDowell Sanctuary conservation area in Anchorage is not considered 4(f), there is additional question as to whether Hendrickson Point will be considered 4(f).	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Section 4f/6f resources affected	Updated to consider Hendrickson Point as a potential 4(f) resource. Changed scoring to -2 for all alternatives that impact more than one 4(f) resource (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Vanderbilt).
130	Should include the total number of acres of impervious surfaces added by each alternative. It does not appear that the bridge footprint and possibly some additional roadway were included in this calculation. Also, do not add already existing impervious surfaces that would be incorportated. Please add missing surfaces for each alternative and share the data and maps the draft numbers are based on.	All roadway impervious surface that is new (would be an addition) was calculated. All of the existing impervious surfaces were not included in the calculation of additional impervious surfaces for each alternative. Will update to include bridge decks as impervious surfaces. Please clarify what data and maps are needed.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Impervious surfaces added	Added bridge decks to calculations and added "in the MWSGR" to the criteria to weight the impacts to the refuge.
132	A qualitative measure listed in the methodology. Why was it taken out?	CBJ indicated the qualitative decision is best left to CBJ decisionmakers to determine. Removed criteria at the request of CBJ. Please advise the best way to document this decision.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Effect on visual/sceniuc quality"	No change, "effect on visual/scenic quality" remains deleted.
134	Developable land "impacted" should read "acquired" (see methodology).	Will update terminology.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Housing and Economic "Developable land impacted"	Changed imacted to acquired.
135	No EJ community or gathering spaces are impacted by either alternative. Update to 0. A private, commercial dock is not a community gathering space.	Vanderbilt impacts a public water access point, please confirm whether or not this would be considered a gathering space. Will remove the private dock as a Salmon Creek impact.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Social "EJ Community"	Changed Salmon Creek to no impacts and scored as 0. Vanderbilt changed to 0 because of recommendation to not consider 5-mile beach access point as a community gathering place.

136	Recommend changing MP to -1 (has an impact). Please share the data and maps the draft numbers are based on.	Will revise to -1 to reflect one residential parcel impacted.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Housing "Residential Uses Affected"	Changed to -1.
137	Each alternative is an improvement. MP should be 1 compared to the others. Please share the data and maps the draft numbers are based on.	Will change Men Pen to positive 1.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Safety	Changed Mendenhall Peninsula to +1
138	The numbers appear to be incorrect. Sunny Point alternatives are too low considering their size. The refuge and SEAL Trust land have to be considered as ROW that would have to be acquired - both appear to be missing in at least the Sunny Point East number. Please explain and share the data and maps the draft numbers are based on.	The numbers are correct. The numbers were quantified based on overlaying the alternatives against the CBJ parcel data and quantifying both the acreage needed for acquisition as well as the number of full or partial parcels.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Total ROW needed"	Revised scores to show -2 for both Sunny Point alternatives as recommended by SEO.
139	Please share the data and maps the draft numbers are based on.	Please review the GIS Mapper for alternative alignments. Please turn on the general ownership layer to see the residential impacts.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Residential Property Acquisition"	No change
140	Please share the data and maps the draft numbers are based on.	Please review the GIS Mapper for alternative alignments. Please turn on the general ownership layer to see the residential impacts.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Commercial Property Acquisition"	No change
141	"No Build" should be in a number and not percentage. Should be based on all comments received and not on the survey only. Please share data and how comments were evaluated.	The data is based on a survey conducted in 2022. Between the build and no build alternatives, only 30.53 percent preferred no build. The survey asked between build alternatives which was preferred. Comparing the number of individuals who selected no build to the number of individuals who selected an individual alternative inflates the no build count by breaking up "build" into nine categories of build alternatives. Because of the inflation, we cannot use a number of respondents for no build. Comment counts are not an objective measure of viewpoints. Comment counts can be inflated by individuals sending multiple comments stating the same viewpoint, whereas other individuals are satisfied sending one comment of their viewpoint. A comment count would weight the results in favor of vocal individuals. Also, comment count is not supported as a survey method accepted by social sciences. Questionnaires and surveys are supported methodologies.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Public Support	No change
142	If navigability of the channel is a requirement of the Salmon Creek alternative (bridge height requirement) is the height requirement taken into account in the cost for all the alternatives that cross the "navigable" channel? There are no docking or other facilities within the refuge. This was specifically called out in the CBJ presentation and gave the appearance of that it was only a consideration at that location. Please explain.	Yes, the height requirements have been evaluated and are reflected in the cost for all the alternatives.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Cost "Estimated cost"	No change
143	Estimated cost should include construction, mitigation, and maintenance (see methodology) - mitigation is missing in draft estimates. Please update and share estimate.	Mitigation requirements and costs are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Cost "Estimated cost"	No change
144	Please share the data and maps the draft numbers are based on.	This criteria is based on reduced travel times. Please see the bridge volume forecast for travel time savings.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	P&N Section "Reduce energy consumption"	No change
145	Each alternative meets this goal. Please share the data and maps the draft numbers are based on.	The positive scores reflect that each alternative does meet this goal. The Origin-Destination and Bridge Forecast memo notes greater benefits realized from the Sunny Point East and West Alternatives owing to more traffic using those crossings based on existing volumes and their location. The scores awarded reflect the likely number of users moving to the different crossing locations. No change recommended.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Additional Goals "Traffic capacity"	Revised so each alternative scores the same for this goal (+2)
146	Deleted	N/A	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	P&N Section	
							P&N Section "Improve transportation for non-motorized users"	

							P&N Section "Reduce energy consumption"	
							P&N Section "Decrease traffic congestion on DI Bridge"	
							P&N Section "Access to healthcare & emergecy services"	
							P&N Section "travel times to workplaces & critical res."	
							Additional Goals	
							Additional Goals	
							Additional Goals "visual, cultural, and	
155	edited - It seems not all wetlands in the area were considered	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "total wetlands"	
156	missing (why was this taken out?)	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "High valued wetlands"	
157	edited - it seems not all intertidal impacts were considered	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Intertidal"	
158	redo	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "steam/Rip habitat"	
159	redo	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "EFH"	
160	edited	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Wildlife habitat"	
161	needs to be reviewed	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Anadromous"	
162	edited - see comment; use ADF&G provided info	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "bird impacts"	
163	edited - see comment	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "4f/6f"	
164	edited - see comment	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "protected lands"	
							Environmental Screening "impervious surfaces"	
							Environmental Screening "visual/scenic quality"	
							Social "EJ"	
							Housing "Resdiental use"	
							Safety	
							Cost "Construction, ROW, Mitigation"	
							Cost "Maintenance"	
							ROW "total ROW"	
							Public Support	
							P&N	

							P&N "improve transportation for non-motorized"	
							P&N "reduce energy consumption"	
							P&N "decrease traffic congestion on DI Bridge"	
							P&N "emergency response time"	
							P&N "access to healthcare & Emergency services"	
							P&N "travel times to workpalces & critical res."	
							Additional goals "additional traffic capacity"	
							Additional goals "AMM impacts to the environment"	
							Additional goals "Visual, cultrual, and scenic identity"	
							EV Screening "wetlands"	
							EV Screening "high value wetlands"	
							EV Screening "intertidal"	
							EV Screening "stream, rip habitat"	
							EV Screening "EFH"	
							EV Screening "wildlife habitat"	
							EV Screening "anadromous"	
							EV Screening "bird impacts"	
							EV Screening "4f/6f"	
							EV Screening "protected lands"	
							EV Screening "impervious surface"	
							EV Screening "visual/scenic quality"	
							Social "EJ"	
							Housing "Resdiental use"	
							Safety	
							Cost "Construction, ROW, Mitigation"	
							Cost "Maintenance"	
							ROW "total ROW"	
							public support	

203	As mentioned in the comments on the JDNC Level 2 Screening results, Section 4(f) impacts are a primary driver of alternative selection and should not be grouped with the other environmental impacts. Perhaps it should be its own category just below the P&N section.	Section 4(f) has its own category. It is an environmental parameter, so we believe it belongs in the environmental criteria. Moving the criteria will not impact the evaluation, but we can give it its own callout.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	1st paragraph	Moving the category from one section to another does not impact the overall score. No change made.
204	Section 4(f) will be analyzed during the NEPA process and is not formally evaluated within the PEL process, the Level 2 Screening criteria touches on many of the components of the Section 4(f) evaluation. We realize that additional information will be gathered during the NEPA process, and the alternative selection process will follow its own path during NEPA. However, if the purpose of this PEL is to provide a viable set of alternatives to carry forward into NEPA it is important to consider the potential implications of impacting a Section 4(f) resource	Consideration has been given to Section 4(f) resources.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	2nd paragraph	N/A
205	Based on the information provided in the PEL study it is reasonable to assume that five of the alternatives have Section 4(f) impacts that would be considered a “use” and that none of the Section 4(f) “use” alternatives would likely meet the requirements of a “de minimis” determination. If those alternatives proceed under NEPA, then it is almost certain that an individual Section 4(f) analysis will be required.	Six of the alternatives have a 4(f) use. We do not know what mitigation would be proposed for any of the alternatives so it is too early to say whether alternatives may qualify for de minimis or not.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	3rd paragrah	N/A
206	The individual Section 4(f) analysis requires the evaluation of an avoidance alternative. The avoidance alternative identified in the PEL study and presented to the public which does not have a Section 4(f) “use” is the Salmon Creek alternative. When selecting an alternative through the individual Section 4(f) process the most important point to remember is if an avoidance alternative is determined to be feasible and prudent it must be selected. The feasible and prudent analysis is focused on the avoidance alternative and not a comparative analysis among all alternatives. A preliminary Section 4(f) evaluation based on the information currently available in the PEL study and Level 2 Screening, per FHWA regulations and guidance is below.	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	4th paragrah	N/A
207	<u>Feasibility:</u> Is the Salmon Creek alternative feasible; can it be built? An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. It would be very difficult to argue that a bridge at Salmon Creek cannot be built given that the current Juneau Douglas Bridge is built across the same channel on a similar footprint to what is proposed at Salmon Creek with a mainland signaled intersection already in place. **Is the Salmon Creek alternative feasible? Yes**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	5th paragrah	N/A
208	<u>Prudence:</u> <u>Does Salmon Creek meet the purpose and need?</u> Yes, Level 2 Screening indicates that it does. <u>Does Salmon Creek result in unacceptable safety and operational problems</u>? There is no indication in the screening that it does and it’s difficult to argue that it would, given that the origin and destination study in the PEL indicates that traffic volume would be at most half of the traffic volume currently crossing the JD Bridge and considerable design leeway is allowed in an effort to avoid a 4(f) resource.	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	6th paragrah	N/A
209	<u>After reasonable mitigation would Salmon Creek still cause:</u> <u>-Severe social, economic or environmental impacts?</u> o Social: **No** o Some economic impact but severe relative to the economy of Juneau: No o Environmental impacts, as the scoring is refined based on stakeholder and agency comment, Salmon Creek will likely score among the lowest impact of all alternatives proposed: **No** <u>-Severe disruption to established communities?</u> **No** <u>- Severe disproportionate impacts to minority or low impact populations</u>? **No** <u>-Severe impacts to environmental resources regulated by other federal agencies?</u> **No** All proposed alternatives impact the same resources regulated by other federal agencies. Impacts are the least severe at Salmon Creek. Is it likely that Salmon Creek could be permitted? Yes. <u>-Cost of extraordinary magnitude?</u> **No**, Salmon Creek is among the cheapest alternatives. <u>Multiple factors listed above that cumulatively cause unique problems of extraordinary magnitude?</u> **No**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Thoughts on Section 4(f)	1st paragraph/header	N/A

210	This preliminary analysis is only intended as illustration of the significant hurdles the use of Section 4(f) resource presents. DOT&PF does have projects that impact Section 4(f) resources, but considerable efforts were made to limit those impacts resulting in a de minimis use or a programmatic evaluation. It would be unlikely that an alternative that went through the Mendenhall Wetlands Refuge would result in anything less than an individual Section 4(f). In the past decade DOT&PF has done one individual Section 4(f) evaluation for a project that did not move forward to construction and another that is currently in the initial stages of an individual Section 4(f) for a project where the existing road is completely enveloped by a Section 4(f) resource and there are no feasible avoidance alternatives. It's also important to consider that other state DOTs rarely pursue individual Section 4(f) evaluations due to the potential for that decision to be legally challenged. Instead, most states go to considerable effort to avoid the use of a Section 4(f) resource or apply a programmatic or de minimis. **A separate path to avoid the "use" determination for those alternatives that go through the Refuge.**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Thoughts on Section 4(f)	2nd paragraph/header	N/A
211	Another possibility resides in the applicability of 774.11(i), since the MAP21-induced amendments to the regulations created a new subsection (i)(2) that gives greater flexibility for the demonstration of joint planning. (2) Concurrent or joint planning or development can be demonstrated by a document of public record created after, contemporaneously with, or prior to the establishment of the Section 4(f) property. Examples of an adequate document to demonstrate concurrent or joint planning or development include: (i) A document of public record that describes or depicts the designation or donation of the property for both the potential transportation facility and the Section 4(f) property; or (ii) A map of public record, memorandum, planning document, report, or correspondence that describes or depicts action taken with respect to the property by two or more governmental agencies with jurisdiction for the potential transportation facility and the Section 4(f) property, in consultation with each other. CBJ is the entity that needs to go through the process with DNR to get the ROW and DOT&PF's decision of a formal reservation will be easier if CBJ has already successfully converted that reservation into a ROW. How this process would work is beyond the scope of statewide environmental and even if successful, it could potentially run into issues with the EPA/USACE and LEDPA (Least Environmentally Damaging Practicable Alternative). *[Attachments include: AS 16.20.034 Mendenhall Wetlands State Game Refuge, AG Opinion re Transfer of Refuge Land, and AG Opinion re AS 16.20.034(i) and (j)]*	Understood.	DOT&PF SEO	Theresa Dutchuk, DOWL	2 and 3	JDNC Thoughts on Section 4(f)	Last paragraph	N/A
212	This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative. Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation. Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the MendenhallWetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse. The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge. The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	2	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Executive Summary	

213	Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF must select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives. Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	5	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Off-Refuge Crossing Priority	
214	The Purpose and Need criterion of “Improving travel times” should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ’s highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives. The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF’s travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.	The scoring values are based upon data in the appropriate memos .	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	6	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Reference Actual Time Savings of All Alternatives	
215	We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.	Further review of hydraulic and hydrologic forces and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	6	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Crossing Structures Limited to Elevated Structures	
216	DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels. First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	See response to Comment 10 - is this consistent? (CJW)
217	Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.	The PEL Study team has received a number of comments and incorporated them into the study as appropriate.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	

218	Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).	The Draft Level 2 scoring evaluated impacts to bird hotspots, Sunny Point East did not impact any bird hotspots which is reflected by the Draft Level 2 scoring of 0. The wetland impacts are complete calculations of fill placement by alternative. The revised scoring of the visual, cultural, and scenic identity criteria is as recommended by the DOT&PF SEO.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
219	The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
220	The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.	Recommendation noted about fractional values. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
221	DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).	The assumption is based from traffic data showing peak congestion surrounding the existing Juneau-Douglas Bridge.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
222	Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
223	The alternatives should be re-scored to reflect the gradient of impact: Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
224	DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.	Comment noted. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Mendenhall Wetlands Study Group	CJW/EA/TD	9	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	

225	A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key “environmental linkages” – the purpose of the Planning and Environmental Linkages (PEL) process.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations. In addition, please note "convenience" is not a criteria in selection of proposed sites considered by engineers in development of alternatives.	Mendenhall Wetlands Study Group	CJW/EA	9	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
226	Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	CJW/EA	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
227	Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL’s choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time from being located in or outside of the Refuge. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
228	The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
229	DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau’s Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	CJW/EA/TD	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island"	
230	DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for ”impervious surfaces added”, but is an incomplete description of the structures’ impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
231	Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL’s acreage tally. DOWL’s recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.	The closet reference is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	

232	Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.	Impact acreages include both wetlands and water bodies, not limited to the footprint on the mainland. Impact acreages were derived from delineated wetlands on the mainland as well as fresh waterbodies. Waters include any area below the ordinary high water. The high tide line was determine mudflats and vegetated intertidal wetlands apart of the Cowardin classification system.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
233	The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary	The list of data sources are listed in Section 2 and the types of wetlands or waterbodies included are included in Table 3 of the Wetland Delineation Report.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
234	Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
235	Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
236	DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.	The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	13	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Intertidal zone directly impacted"	
237	According to communications from the PEL team the wetland acreages were being tallied for all "wetlands and waters" jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL's acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected	A breakdown of intertidal and freshwater impacts are located within the Wetland Delineation report. The footprint for the Egan Drive interchanges were included due to a goal to improve safety, including conflict points. Specific quantities for fill material and support structures are not yet defined in this phase of the PEL process and will be more defined in the design phase.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	13	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Intertidal zone directly impacted"	
238	As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion "Fish Habitat Affected". We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.	EFH impacts were removed following the recommendation from NOAA Fisheries.	Mendenhall Wetlands Study Group		14	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "EFH"	

239	This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.	Different habitat classifications for species will be developed further into the NEPA analysis.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	14	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wildlife habitat directly impacted"	
240	Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wildlife habitat directly impacted"	
241	Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Mendenhall Wetlands Study Group	CJW/TD (from #8 and #12)	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
242	DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	CJW/TD	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
243	The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.	"Hotspot" was a term adopted from Armstrong et al. 2004 as well as eBird. Proximately to nesting locations (500') is the critieria used for the rating from the appropiate existing and field data.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
244	eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.	All appropiate and relevent data will be used to determine impacts to migratorty birds. The points referred to in the comment are in fact place holders before obtaining additional data apart of the NEPA process.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
245	We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations	Comment noted.	Mendenhall Wetlands Study Group	CJW	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
246	In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.	A more detailed evaluation of impacts to bird habitat will be undertaken during a NEPA analysis.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	

247	SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
248	Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
249	The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
250	The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
251	The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
252	Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
253	The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003 (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	

254	The Mendenhall Peninsula crossing alternative runs through the top bird “hotspot” at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as “first tier” for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these “first tier hotspots,” representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	
255	Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge’s “top hotspot” and “probably among the most important feeding habitat for ducks and shorebirds” on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird’s Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The “Hotspots” authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two “second tier hotspots,” the channels, rockweed beds, and tideflats extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of “seasonal hotspot” f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	
256	The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 “top tier” refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).	Comment noted.	Mendenhall Wetlands Study Group	CJW	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
257	On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
258	Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.	Comment noted.	Mendenhall Wetlands Study Group	CJW	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	

259	Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt (“Pioneer”) marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a “nearby hotspot” in the Hotspots report, important as a “refuge from the refuge” and for wildlife viewing (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
260	The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a “second tier hotspot” and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
261	Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
262	The Twin and Vanderbilt impact areas overlap at Vanderbilt (or “Pioneer”) marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered “nearby hotspots” (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
263	The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt (“Pioneer”) marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek’s glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a large tidal “island.” Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal “island.”	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
264	The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
265	We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area’s role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	

266	In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	CJW/TD (from #8)	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
267	DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative	Level 2 scoring was revised to consider all property within the Refuge in order to maintain its integrity. However this weighted criteria did not alter the results drastically.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	22	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Section 4(f)/6(f) resource affected"	
268	Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.	Hendrickson point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	22	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Section 4(f)/6(f) resource affected"	
269	DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.	The Project Team eliminated properties from the analysis if it did not fall within the project footprint or specific to the scoring criteria of within a certain proximately.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
270	In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	CJW (same as #28)	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
271	In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.	The Refuge and its adjoining properties such as designated access points are acknowledged in the scoring process.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
272	When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
273	This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	Mendenhall Wetlands Study Group	CJW/TD (same as #54)	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
274	DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
275	ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	

276	The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
277	DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated total construction"	
278	MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated total construction"	
279	Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated annual maintenance"	
280	The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative. Scoring MP WSP ESP VB TL SC DOWL -11 -8 -3 -10 -6 -14 MWSG -23 –20 -17 -11 -6 -10.5	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	26	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
281	MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity: Lowest Impacts Twin Lakes -6 Salmon Creek -10.5 Vanderbilt -11 East Sunny Point -17 West Sunny Point -20 Highest Impacts Mendenhall Peninsula -23	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	26	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
282	A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Mendenhall Wetlands Study Group	CJW (pulled from # 13 response)	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
283	Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives	Comment noted. The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	

284	The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
285	The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.	None of the six alternatives evaluated in Level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
286	If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
287	The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: “1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation.” The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	28	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
288	The National Transportation Act of 1966 provides instruction under Section 4(f): “The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.” If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats. [see Figure 1, Map Key, Mendenhall Penisula, West & East Sunny Point, Vanderbilt, Twin Lakes, Salmon Creek figure]	Comment noted.	Mendenhall Wetlands Study Group	CJW	28	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
289	The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.	Recommendation noted. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies.	ADF&G	Emily Anderson, DOWL	1	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	

290	The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.	Recommendation noted. Criteria on how metrics were applied to derive at quantities can be shared further in the NEPA process.	ADF&G	Emily Anderson, DOWL	1	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	
291	We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.	Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	ADF&G	CJW/TD	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	
292	For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).	Acreage of added impervious surface includes piles and bridge decks.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
293	Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.	Comment noted.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
294	Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.	If referring to the figure in the "Wetland Delineation" presentation slide (pg. 9), the wetland layer displayed is from the National Wetland Inventory and is typically not entirely accurate. The data used in the scoring is from the wetland delineation fieldwork.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
295	Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.	This score includes linear feet of impact to streams and a 50-foot riparian buffer.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
296	Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.		ADF&G		2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
297	The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DO&PF Statewide Environmental Office.	ADF&G	CJW/TD (#8)	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
298	Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.	Anadromous streams impacted values were updated from, MP: 0, SPW: 8, SPE: 4, VB: 3, TL:0 to MP: 1, SPW: 14, SPE: 4, VB: 3, TL: 0.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
299	The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting, fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'	Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	
300	By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects: 1.Public access to and within the refuge; 2.Opportunities for hunting waterfowl and fishing within the refuge; 3.Opportunities to recreate in the refuge; and 4.Opportunities for viewing, photography, education, and study of fish and wildlife	Recommendation noted. Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	

301	In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies, such as impacting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives located outside of the Refuge.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	
302	Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.	The PEL study team rescored the alternatives with two additional methodologies, such as impacting or bisecting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives. Particular functions of the Refuge such as habitat types will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
303	Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	ADF&G	CJW/TD #8	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
304	We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations	The scoring for Level of Public Support is based on survey responses. The No Build reflected percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative received.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
305	We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories. However, the PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	USFWS	Emily Anderson, DOWL	1	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
306	This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
307	If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
308	In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
309	We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically: The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
310	Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	USFWS	CJW/TD #10	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
311	If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process	A narrative of the Level 2 Screening scores will be provided in the PEL Study.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
312	For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.	Recommendation noted. Additional criteria for scoring may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
313	The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives	The No Build score reflects the percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative comments received.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	

314	It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public	Scores are used as a screening tool for alternative comparison and overall feedback. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
315	In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?	[STANDARD RESPONSE – CONCERN ABOUT USING STUDIES SUPPORTING PEL PROCESS] The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis.	USFWS	CJW	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
316	The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts. -We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	CJW, DOWL from M. Hall, Parametrix	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
317	In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved: -Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
318	Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.	Recommendation noted. Additional criteria for scoring such as habitat and species may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
319	Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc	Recommendation noted. Additional criteria for scoring such as migratory bird life stages may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
320	The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.	Comment noted.	USFWS	CJW	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
321	Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.	Comment noted.	USFWS	CJW	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
322	The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (Brachyramphus marmoratus), black oystercatcher (Haematopus bachmani), rock sandpiper (Calidris ptilocnemis), short-billed dowitcher (Limnodromus griseus), lesser yellowlegs (Tringa flavipes), red knot (Calidris canutus), California gull (Larus californicus), olive-sided flycatcher (Contopus cooperi), rufous hummingbird (Selasphorus rufus), chestnut-backed chickadee (Poecile rufescens), varied thrush (Ixoreus naevius), and Vaux's swift (Chaetura vauxi). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.	Recommendation noted. The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome. Recommendation noted. Additional criteria for scoring such as migratory bird species and habitat may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	

323	Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.	Recommendation noted. A more robust analysis on bald eagle nests will occur further within the NEPA process.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
324	The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.	Comment noted. A more robust analysis on fish species will occur further within the NEPA process.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
325	Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study. It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
326	Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?	Mitigation requirements and costs are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
327	SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process.	SEALT	Emily Anderson, DOWL	2	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Technical Advisory Committee Engagement	
328	PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.	Comment noted. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	Emily Anderson, DOWL	2	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Technical Advisory Committee Engagement	
329	The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.	All comments will be logged and are included as an appendix to the PEL Study for public record.	SEALT	Emily Anderson, DOWL	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments		
330	In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	

331	For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	
332	The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	
333	It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	CJW	4	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
334	The SEALT Habitat Mapping and Assessment Project includes two significant components: 1. A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and 2. A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	CJW	4	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
335	The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. In addition, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
336	SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find no relation between the wetland survey report and the impact quantification matrix or scores and no functional assessment as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is no summary of the wetland acreage to be impacted by type and alignment.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW/EA	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
337	It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	SEALT	CJW/EA	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	Possibly need SME clarification on use of the term "salt marsh." It IS used in caption for Photos PP-40 and PP-27.
338	It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.	Comment noted. Wetland habitats were broken out by alignment at a later date on March 13, 2024.	SEALT	Emily Anderson, DOWL	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	

339	We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by SEALT Comments - JDNC PEL Study Level 2 Screening 6 alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.	Comment noted. Further coordination is needed to distribute shapefiles.	SEALT	Emily Anderson, DOWL	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
340	First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
341	Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.	Comment noted. The SEALT 2024 Assessment Area map and 2023 Habitat map were reviewed for the wetland delineation report.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
342	Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
343	The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	CJW	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
344	The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)	Comment noted. A more robust analysis on migratory bird habitat within the Refuge will occur further within the NEPA process.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
345	Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	SEALT	CJW	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Hendrickson Point is not mentioned in the Wetland report.
346	It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.	The closest reference found is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	SEALT	CJW/EA	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	
347	Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.	The closest reference found is the CBJ Wetlands Management Plan (2016). Please share reference.	SEALT	Emily Anderson, DOWL	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	

348	Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the “missed” area in DOWL’s report has significant cover of rusty Menziesia, a shrub classified as “facultative upland” although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.	Rusty Menziesia, commonly known as Fool's Huckleberry or False Azaela, is noted in the datasheets in accordance to the USACE State of Alaska 2016 Wetland Plant List as Menziesia ferruginea. Sample points from Hendrickson Point noted dominant men. fer. as high as 40 percent in areas classified as wetlands although a Facultative Upland species. This was not classified as morphological adaptation due to the absence of men. fer. solely growing within hummocks and the general lack of snagged trees.	SEALT	Emily Anderson, DOWL	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	There is some criticism about DOWL's experience to ID wetlands in this comment. Is the PEL level of study the reason for the perceived lack of experience? (i.e., "survey-level" for alternatives scoring)
349	Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives’ alignment crossing Hendrickson Point. Inappropriately considered “FACUP” (“facultative upland,” usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.	Crabapple (Malus fusca) was not encountered during the wetland, intertidal, or migratory bird survey. This species is considered a Facultative Wetland (FACW) according to the USACE State of Alaska 2016 Wetland Plant List. The most commonly encountered hemlock was Western but has the same indicator status as Mountain hemlock as Facultative. Sample Point 12 did not contain any tree species in the shrub or tree stratum due to beyond 30 feet from the soil test pit.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Same as above for 346.
350	Given the difficulties of delineation with the USACE’s weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL’s delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.	The footprints of Sunny Point East and West largely vary due to the different preliminary design elements of the intersections.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Seems to be information missing in Wetland Report about Hendrickson Point. Do we need to request this reference?
351	We observe, however, that DOWL’s impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.	The wetland delineation fieldwork included the proposed alignments with 150-foot buffer from the edge of the footprint. Exact feet of footprint may vary in some areas due to the alignment footprint containing intersection features or just the roadway.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	issues with engaging on project portal.
352	Some of the “missed” areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from “impacted wetland acres” tallies used for comparing alternatives, so this omission is significant and concerning.	Aerial photography and LiDAR imagery were reviewed prior to and post field studies. Although ADF&G does not classify the streams within the project footprint as anadromous, field notes did not document any presence of fish or other aquatic species. The habitat surrounding the mapped streams were largely forested with dominant species of Western Hemlock (FAC) and Fool's Huckleberry (FACU). Even with wetter than normal climatic conditions, yellow-skunk-cabbage was the only OBL or wetland specific species found along the stream banks to help indicate wetland conditions.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	SME - does "significant and concerning" (in the comment) affect the screening-level for alternatives?
353	While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.	Dominant species of the sample point showed little wetland vegetation despite wetter than normal conditions. Even in a flatter area that may be retaining water due to the landscape, the area did not contain any primary hydrologic indicators such as saturation or a high water table.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	There is no mention of "Hendrickson Point" in the May 2024 Wetlands Delineation and Functional Assessment - SME?
354	The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ’s 2014 mapping were also missed along the Mendenhall Peninsula alignment.	Field surveyors took extra precaution to be respectful to property owners and did not access private parcels even if e permission was pre-arranged. Trail locations are not typically documented for wetland delineations. Mapped forested (few) CBJ wetlands not encountered during field survey included north Mendenhall Peninsula within private property and field surveys captured more fw wetlands in this area and the southern portion than shown on CBJ mapping.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	

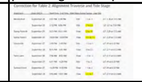
355	SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.	Comment noted.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Hendrickson Point is not mentioned in the Wetland report.
356	The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.	A functional assessment was completed on March 13, 2024.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
357	The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
358	The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
359	SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.	Comment noted. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
360	1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	The functional assessment is included in the May 2024 report.
361	2. What protocol will DOWL use?	Wetland delineation will be in accordance with the 1987 USACE Wetlands Delineation manual and the 2007 Alaska Regional Supplement. WESPAK is the protocol for the functional assessment.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
362	3. Will the alternatives be re-scored using the functional assessments?	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
363	4. Will the functional assessments be completed before or after the public comment period opens?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
364	5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?	The scores and function ratings for specific functions or values including aquatic habitat are included as Appendix 4 of the wetland delineation report. Impacts for each alternative's harm to species will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
365	6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?	If approved by the PEL Study Team, another delineation may be feasible during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	Hendrickson Point is not mentioned in the Wetland report.
366	The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: "This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
367	SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	

368	The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft wide alignment for each alternative, and with few habitat types.	The area covered in the report includes the footprint within Fritz Cove between the Mendenhall Peninsula and Douglas Island.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
369	While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:	Comment noted.	SEALT	CJW	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
370	For example, the intertidal crossing distances given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
371	Low marsh acreage in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for high marsh as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)	Comment noted.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
372	Special habitats mentioned in the report such as mussel/rockweed habitat, channels, and deltas that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
373	Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
374	High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for the report's "upper intertidal" do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
375	High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
376	While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
377	It might also be useful in this project area to map "wet high marsh" and/or "ponded high marsh" as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
378	It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to - 10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?	The Intertidal Habitat Survey Report states the upper limit of tidal influence in some areas within community structures of up to 25' from the MLLW, a relative difference of 15' (the Mean High Water). These areas along Egan Drive would not be classified as intertidal as they are vegetated areas and documented in the field surveys. Calculations were based off exact linework provided from the field surveys and may vary depending on exact location.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	

379	The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.	The intention of survey and report is to classify and map habitat types pertinent to migratory birds. The scoring methodology included proximately to nesting locations, indicating an higher value of habitat to a degree. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
380	Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.	The intention of survey and report is to classify and map general habitat types pertinent to migratory birds species along with species observation. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	**Bird Habitat**	
381	DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.	An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
382	The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
383	The PEL bird habitat impact rating shows "0"s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome. Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	Emily Anderson, DOWL	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	onse about bird habitat in the refuge (comment 8)
384	How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from "hotspots". Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound if applied correctly and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	CJW	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	

385	If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The 'points' represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	CJW	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
386	For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.	Comment Noted.	SEALT	CJW+	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
387	Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."	Comment noted. NEPA requires addressing cumulative impacts as part of the impacts analyses.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
388	Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
389	These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
390	In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. Every crossing alternative would disrupt one or more anadromous fish streams. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
391	Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	

392	The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
393	The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
394	The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
395	The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
396	SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
397	The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
398	The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
399	Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor. While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
400	The "Introduction" starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.	Agreement with the commentor. This was an editorial mistake in the Introduction paragraph of the Eelgrass Survey report.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Tier 1 Eelgrass Delineation Report (Feb 2024)	[CJW agrees with the commentor - editorial mistake.]
401	While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report's introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.	The 2023 Eelgrass Survey report was considered during the survey-level PEL Study to inform scoring in screening of alternatives. It is certainly possible additional eelgrass surveys will be needed to provide adequate and appropriate data for a robust NEPA analysis of proposed alternatives. The Work Plan for the study specifically notes the survey would be conducted at low tide and states: "If the selected alternative has eelgrass present in its alignment, a more thorough eelgrass survey should be conducted prior to Project initiation.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Tier 1 Eelgrass Delineation Report (Feb 2024)	timing at low tide was presented in the work plan for the eelgrass survey.
402	The "Previous Investigation" section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the "Previous Investigation" section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.	The NOAA-mapped eel grass within the Mendenhall Peninsula is outside of the study area and outside of the scope of the field survey.	SEALT	Emily Anderson, DOWL	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Previous Investigation	Commentor indicates the Previous investigation section (available information) about eel grass presence seems to be incomplete in the report. In addition, commentor asked about the date of ShoreZone data (Feb 2024)
403	A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.	Comment noted. Eelgrass survey was conducted in accordance with the work plan (dated September 2023)	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Methods	QC review: check that response is complete
404	The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For the purpose of this review, a revised results table with the needed tidal information in italics is shown below.	Comment noted.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	

405	Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.	Comment noted. The eelgrass field survey was conducted in accordance with the work plan (September 2023). Limitations of the survey are acknowledged in the work plan and report.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	
406	While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.	Comment noted. Limitations of the survey are acknowledged in the work plan and report.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	QC review response
407		Acknowledged.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Correction for Table 2: Alignment Traverse and Tide Stage	
408	The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	Do we need a more robust defense of the eelgrass survey and report?
409	The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.	Comment noted. During development of the affected environment information for the NEPA analysis, SEALT will be consulted to ensure all available and relevant data are considered.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
410	While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
411	In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
412	Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
413	The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
414	Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
415	Even with some eelgrass on the Falls Creek delta, the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
416	DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores	Information from the Bridge Volume Forecast Memo is considered for the Purpose and Need for the project and addresses traffic forecasts for each alternative.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	Need an assist on this response abou the Bridge Vol Forecast

417	The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
418	A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
419	After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.	Comment noted. **[Is further explanation needed about return to current traffic volumes in 10-12 years?]**	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	Seems to need an explanation about traffic volumes on the existing bridge after construction of an alternative.
420	By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
421	The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
422	It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
423	PEL Study Should Be Data- As Well As Process-Driven ● Well-defined and transparent public process ● Coherent and defensible data-based results ● Not meant to circumvent regulatory responsibilities ● Communication to and understanding by stakeholders and technical advisors	Comment noted.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	
424	These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.	The surveys noted by the commenter (assumed to be the wetland delineation, eelgrass survey, etc.) were conducted to address identified gaps in available information needed for the survey-level PEL study. Additional studies are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	Theresa review needed.
425	In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	Theresa review needed.
426	DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	Emily Anderson, DOWL	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2024	Theresa. Need some history of development of the scoring methods.
427	"High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	SEALT	CJW/TD	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2025	TD - comment 425 - 433 are about the scoring categories - some history there to address.
428	For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.	Comment noted.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2026	
429	The score for "Important Migratory Bird Habitat Impacted" would have been determined by the acreage of habitat impacted by construction.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2027	Changes based on SEO comments - notes to "use the ADF&G provided info." What is this? The letter of 2/3/2023?

430	For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2028	
431	“Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.	Recommendation noted.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2029	
432	“Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.	To avoid scoring discrepancies, some criteria were dismissed until further into the NEPA process to determine its exact methodology of measurement.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2030	
433	The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2031	
434	We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.	Comment noted.	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	
435	However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.	The No build alternative would not meet the purpose and need. However, the No Build (i.e., No Action) alternative is required to be equally considered among the other alternatives carried forward through the NEPA analysis, and thus was included in the screening table. As noted by the commentor, the PEL Study was not designed to analyze whether the No Build alternative is the best choice.	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	May need a TD tweak in wording
436	Scoring a No Build alternative at 0 for criteria such as “Avoid, minimize, and mitigate negative impacts to the environment” is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive).	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	TD check my assumption here.
437	It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Weighting the Criteria	(from TD response to comment 10)
438	Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Weighting the Criteria	(from TD response to comment 10)
439	The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	
440	The range of -2 to +2 lumps moderate impacts with severe impacts, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.	Mitigation requirements and measures are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies as they typically determine specific mitigation measures.	SEALT	Emily Anderson, DOWL	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	

441	Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion “Avoid, minimize, and mitigate impacts to the environment” scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL’s current scoring to see that difference.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive). The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	TD, check my approach on this one.
442	In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	
443	With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
444	Mendenhall Wetlands State Game Refuge Management Plan: The Refuge’s Management Plan states that the Refuge was “established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation.” All alternatives crossing through the Refuge are inconsistent with Refuge’s Management Plan, which provides guidance on managing the Refuge to achieve this purpose.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
445	USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
446	2013 CBJ Comprehensive Plan: The alternatives located within the Refuge’s boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states “To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards.”	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
447	2013 CBJ Comprehensive Plan: The Plan notes in Chapter 9 that “Natural, undeveloped areas…are an essential component of the CBJ’s community form and identity. They should be maintained and enhanced.” The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
448	2013 CBJ Comprehensive Plan:The Plan notes in Chapter 9 that “Natural, undeveloped areas…are an essential component of the CBJ’s community form and identity. They should be maintained and enhanced.” The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	This is a duplicate comment of 445.
449	2013 CBJ Comprehensive Plan: As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
450	2013 CBJ Comprehensive Plan: Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	

451	Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
452	Marjory and Edgar Huizer Fishing Access Site Management Plan: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
453	Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "...may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until: "(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an alternative other than a Sunny Point alternative; and "(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record. "Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law." *There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.*	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
454	Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.	Comment noted.	SEALT	CJW	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
455	The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024. The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	Emily Anderson, DOWL	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	Theresa: there are several comments (455-470)regarding functional assessment by SEALT and their contractors - is a "comment noted" sufficient?
456	For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershedbased areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.	The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	Emily Anderson, DOWL	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
457	See table 1: WESPAK-SE Protocol - Functions and Values	Comment noted.	SEALT	CJW	27	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
458	See figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas	Comment noted.	SEALT	CJW	28	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
459	Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.	Comment noted. The use of an additional functional assessment protocol for the PEL Study will be up to the discretion of DOT&PF and CBJ.	SEALT	Emily Anderson, DOWL	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
460	Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
461	As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
462	See Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	

463	Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
464	While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
465	The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
466	At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
	WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.	Nominated streams are not shown on the ADF&G Anadromous Waters Catalog. Moreover, the maps such as the ones located within the Wetland Delineation report shows mapped streams not shown on the database on the Douglas Island side of the Mendenhall Peninsula alignment.	SEALT	Emily Anderson, DOWL	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	Were the ADF&G nominated streams available at the time of the DOWL PEL study? AND what DOWL project maps does the comment refer to? -
468	Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
469	The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
470	The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
471	The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	Is this attributable to a typo in acreage?
472	Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
473	This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.	Comment noted.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	Significant figures misrepresentation?
474	ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.	*Opinion. Comment noted. Seems to be a premature judgement based on planning-level screening appropriate for this stage of the PEL study vs. robust analysis at the NEPA level….[or something like that…]*	SEALT	CJW	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
475	In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.	Comment noted. Also, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW	32	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	

476	See Figure 2: Acreage of Impacts by Alternative	Acknowledged.	SEALT	CJW	32	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
477	See Figure 3: Percentage of Habitat Impacts by Alternative	Acknowledged.	SEALT	CJW	33	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
478	See figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	34	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
479	See Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	35	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
480	see Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	36	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
481	See Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	37	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
482	See Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
483	All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.	Comment noted.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Wetlands Owned and Stewarded by SEALT	
484	It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.	Comment noted.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Wetlands Owned and Stewarded by SEALT	
485	The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East	
486	The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point West	
487	The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.	Comment noted.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point West	
488	The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW, DOWL from M. Hall, Parametrix	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	

489	The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
490	SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
491	All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
492	Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.	*[explain or direct commentor to support for the alternatives selected for screening]*	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
493	It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.	Opinion. Comment noted. Public Interest Review is integral to the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Not sure this is "Impacts to Bird Habitat." Need to address critical comment about PEL process?
494	The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.	**Opinion. "Convenience" is not a criteria considered by engineers in development of alternatives nor NEPA analysis. DOWL takes exception to the implication otherwise. [also need to address "not credible" regarding bird habitat ratings]**	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
495	The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.	Comment noted. All publicly available applicable and relevant information would be considered and incorporated as appropriate during a future NEPA process.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
496	The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
497	The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.	Comment noted.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	

498	The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.	Comment noted.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
499	It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Need understanding of the "Hotspots" study.
500	For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Need understanding of the "Hotspots" study.
501	eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
502	"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
503	The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
504	Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Shortbilled, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the deltaedge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	

505	Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
506	Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
507	The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for SEALT Comments - JDNC PEL Study Level 2 Screening 44 Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Redwinged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).	Comment noted	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	
508	The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	
509	The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	

510	The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or “Pioneer”) marsh, noted SEALT Comments - JDNC PEL Study Level 2 Screening 45 above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
511	The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
512	The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this littledisturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
513	The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area’s function as “refuge within the refuge” would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
514	The Level 2 Screening bird habitat rating of the Sunny Point East alignment is “0” - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	CJW EA	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	

515	The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
516	The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
517	In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Shorteared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
518	At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
519	With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
520	The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Amstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
521	Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	CJW EA	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	

522	It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the “top hotspot” and “probably among the most important feeding habitat for ducks and shorebirds” on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud, barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and highconservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird’s Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
523	The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow’s and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Redbreasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a “floating boundary.”	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
524	To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
525	To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as “second tier” hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
526	On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a “top winter season hotspot” with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
527	Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.	Comment noted.	SEALT	CJW	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Aviation Safety Resulting From Impacts to Bird Habitat	
528	Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including the Juneau and Douglas terminus of each alternative.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impervious Surfaces	
529	Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including Hendrickson Point.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impervious Surfaces	
530	DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:	Comment noted.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	

531	Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.	Comment noted.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
532	From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.	The data is based on a survey conducted in 2022 before any field surveys were conducted to gain interest between the build and no build alternatives. The survey asked between build alternatives which was preferred.	SEALT	Emily Anderson, DOWL	50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
533	In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
534	It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.	**[Public Interest Review/NEPA process]**	SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
535	DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
536	DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.	Comment noted.	SEALT	Emily Anderson, DOWL	50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
537	1. Did these estimates consider repairs to the existing bridge? 2. How will maintenance change for existing roads on the mainland and Douglas Island? 3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates? 4. Did the estimates consider additional lanes for a new bridge as part of this? 5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
538	Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.	Mitigation requirements and costs are not known. Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
539	Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.	Comment noted. The airport based alternative did not move through the alternatives screening process.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
540	Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.	Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
541	The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.	Comment noted.	SEALT	CJW	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
542	As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.	Mitigation requirements are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
543	SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.	Mitigation requirements and costs are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	

544	While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.	Comment noted.	SEALT	CJW	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
545	However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report: 1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands. 2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly. 3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.	Comment noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
546	Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.	Comment noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Conclusions and Recommendations	
547	The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
548	"Avoid, minimize, and mitigate negative impacts to the environment" should be a core goal of the PEL Study rather than an "additional goal".	Recommendation noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
549	The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.	All survey protocols were vetted through the appropriate jurisdictional agency prior to fieldwork through approved workplans. These reports are considered pre-NEPA and used to gauge general impacts and study area characteristics.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
550	The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.	Potential mitigation requirements and needs are not known for any of the alternatives. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
551	Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.	Comment noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
552	"Low Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
553	"High Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
554	Fishing (Social) - impacts to sport fishing according to ADF&G	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
555	Hunting (Social) - impacts to waterfowl hunting according to ADF&G	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
556	Recreation (Social) - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
557	Cultural Uses (Social) - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
558	Aviation Approaches (Safety) - impacts to aircraft approaches according to FAA	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
559	Aviation Facilities (Safety) - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
560	Navigability of Gastineau Channel (Safety) - impacts to navigability for each alternative according to USCG	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
561	Mitigation Site Replacement (ROW) - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
562	Protected Lands Replacement (ROW) - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	

563	Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini. Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.	Comment noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
564	Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.	Comment noted.	SEALT	Emily Anderson, DOWL	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
565	The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.	Comment noted	SEALT	CJW	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
566	1. No Build a. All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex. b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the farreaching material impacts to those resources from bridge construction in a cost-benefit analysis. c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement. d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.	The existing conditions and data reviewed to develop the purpose and need statement included the limited connection between Juneau and Douglas Island and the risks associated with it, emergency response and access to workplace or other critical resources, traffic pressure on the Douglas Island Bridge and its intersections, and the housing shortage in Juneau. Other types of transportation alternatives were analyzed but dismissed due to not meeting the approved Purpose and Need for the project. A more robust NEPA analysis will be conducted outside of the PEL Study.	SEALT	Emily Anderson, DOWL	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
567	2. Salmon Creek a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points SEALT Comments - JDNC PEL Study Level 2 Screening 55 b. Minimal functional impacts to SEALT mitigation sites c. Fewer regulatory and permitting requirements for impacts to protected resources d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek e. Lower mitigation costs f. Shortest intertidal crossing and use of existing interchange reduce impacts	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
568	3. Twin Lakes a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources c. Would shut down important waterfowl hunting areas on the Refuge d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini e. Moderate to high mitigation costs	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
569	4. Vanderbilt a. More damaging to salt marsh, habitat connectivity, and Refuge integrity b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area c. Moderate functional impacts to SEALT mitigation sites d. Would shut down important waterfowl hunting areas on the Refuge	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
570	5. Mendenhall Peninsula a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	

571	6. Sunny Point West a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
572	7. Sunny Point East a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration. Recommendations to PEL Study Team and Future Second	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
573	In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.	Recommendation noted.	SEALT	Emily Anderson, DOWL	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Recommendations to PEL Study Team and Future Second Crossing Project Reviewers	
574	The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
575	This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	comment on the PEL "process."

Greater Juneau Chamber of Commerce

3030 Vintage Blvd, Suite 100 • Juneau AK 99801 • (907)463-3488

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University of AK-SE

Marc Guevarra
First National Bank Alaska

February 12, 2025

Greg Lockwood, Project Manager
Department of Transportation & Public Facilities
PO Box 112500
Juneau, AK 99811-2500

Re: Objection to Salmon Creek Alternative for North Crossing

Dear Mr. Lockwood,

The Greater Juneau Chamber of Commerce strongly opposes the inclusion of Salmon Creek as a viable Alternative for the Juneau Douglas North Crossing.

The closer any crossing is to downtown Juneau the less effective the crossing will be for the future development of North and West Douglas, access to Douglas Island by the largest population center of the community and the most detrimental to the residents living along the existing North Douglas Highway.

The PEL study does not project traffic demand from future residential and commercial development on North and West Douglas, but the location of the crossing is a critical component for future growth.

From a safety standpoint, a crossing at Salmon Creek ignores the importance of a reliable second crossing that provides emergency access to and from Douglas Island. While very unlikely, the failure of the Salmon Creek Dam and the resulting inundation – according to the models - would result in a crossing at this location being destroyed to one extent or another.

The Salmon Creek alternative would also require the acquisition of a significant amount of private property compared to alternatives that have access to CBJ land.

Respectfully,

Ben Brown, President

Maggie McMillan, Executive Director

cc: Beth Weldon, Mayor, City & Borough of Juneau
Katie Koester, City Manager, City & Borough of Juneau

February 28, 2025

State of Alaska Department of Transportation
Attn: Christopher Goins

CC: Commissioner Ryan Anderson, DOT&PF
Commissioner Doug Vincent-Lang, ADF&G

RE: Second Crossing PEL, Public Comment By City and Borough of Juneau

To Whom It May Concern,

The City and Borough of Juneau (CBJ) has enjoyed a long partnership with the Alaska Department of Transportation and Public Facilities (DOT&PF) and the Alaska Department of Fish and Game (ADF&G) to study the Juneau Douglas North Crossing.

CBJ supports the development of a transportation corridor to connect Juneau with North Douglas. Juneau can no longer rely on a single bridge. As neighborhoods and other developments flourish, Juneau must safely and efficiently grow. As part of this process, CBJ is submitting this public comment, but must preface the below with a reiteration of our willingness and desire to work together to best serve the people of Juneau and protect the pristine environment in which we live.

Since the 1980's, CBJ and DOT&PF have worked closely to study the development of a second crossing, connecting Juneau to North Douglas. The geography of the area will likely necessitate the placement of a new bridge on or close to the Mendenhall Refuge. Knowing that the next steps will be a NEPA review, as part of the PEL process, we would like to bring to your attention a conflict between the Alaska Constitution, Alaska Statute Title 16, and the 1990 Mendenhall Wetlands State Game Refuge Management Plan.

The Mendenhall Refuge was created by statute in 1976. Alaska Statute 16.20.34 contains the establishing language, setting forth the refuge boundaries, management of the refuge, and permitted activities in the refuge. Subsection (i) provides directive language to Fish and Game for the development of a management plan. Specifically, it states:

> (i) The management plan adopted under (g) of this section must include provisions under which the City and Borough of Juneau may acquire land, by sale, exchange, or otherwise, for purposes of expanding the Juneau Municipal Airport, establishing additional transportation corridors, including water corridors, and establishing publicly owned and operated docking facilities, and these uses are considered preferential under art. VIII of the state constitution but subject to the requirements for plan specification and approval under AS 16.20.060. A deed, contract of sale, lease, or other instrument evidencing disposition by the Department of Natural Resources of land under this subsection must include, among other terms, the condition that the land is restricted to use for airport expansion, establishing additional transportation corridors, including water corridors, and establishing publicly owned and operated docking facilities.

While the overarching purpose of a state refuge is to protect land and resources for the public use, local governments are provided with preferential rights. Here, for example, CBJ has a preference for a transportation corridor. In reviewing other refuges, preferences are clearly and consistently found within statute. For example, a public right-of-way is included for transportation and utilities between Anchorage and Fire Island,[1] a transportation corridor is provided for in the Palmer Hay Flats,[2] several refuges include provisions for oil and gas exploration,[3] and Creamer's Field expressly provides for agricultural activity within the refuge.[4]

In 1990, the Department of Fish and Game created the Mendenhall Wetlands State Game Refuge Management Plan ("the Plan"). The stated purpose of the Plan is to "provide consistent long-range guidance to the Alaska Departments of Fish and Game and Natural Resources and other agencies involved in managing the refuge."[5] While the Plan is guidance only, it mandates that "Activities will be approved, conditioned or denied based on the direction provided in this plan as well as state laws and regulations."[6]

In reviewing the Plan as a whole, it does not make any allowance for governmental purposes, nor does it recognize the local government preferences set forth in the Alaska constitution and Alaska Statute Title 16.[7] With regards to a transportation corridor, the Plan notes:

> The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following has been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonable be met off-refuge, 2) that the use of refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to

[1] AS 16.20.031.
[2] AS 16.20.032
[3] AS 16.20.036 and 038.
[4] AS 16.20.039.
[5] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, page 1.
[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.
[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.

the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation.[8]

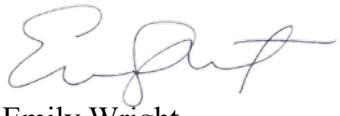
Similar constrictive and narrowing language is found under both the airport expansion and public docking facility sections.[9]

With regards to the Juneau North Douglas Crossing PEL Study, we encourage DOT&PF to adhere to the parameters of the Alaska constitution, Alaska Statute Title 16, and the guidance provided in the Plan as it closes out the PEL process and moves into the NEPA process. As this process moves forward, CBJ intends to submit a plan under 16.20.060, which will include mitigation details to protect the Refuge while preserving the transportation corridor.

As noted in the House Resource Committee minutes from January 30, 1976, the creation of the Mendenhall Wetland Refuge was done with the full knowledge and support of future development by CBJ, namely a second crossing, airport expansion, and a port facility.[10] These documents and the intent behind them must work together to meet the needs of the people of Juneau and Alaska.

We look forward to working with DOT&PF and ADF&G on this exciting and challenging project.

Sincerely,



Emily Wright
City Attorney
City and Borough of Juneau

[8] https://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/mendenhall.pdf, pages 9-10.
[9] *Id.* Page 10.
[10] *See*, attached page 1.

JEDC
Juneau Economic Development Council

612 West Willoughby Avenue
Juneau, AK 99801-1732
Phone: (907) 523-2300
Fax: (907) 463-3929
www.JEDC.org

March 7, 2025

Juneau Douglas North Crossing PEL Study Team
Alaska Department of Transportation and Public Facilities
PO Box 112500
3132 Channel Drive
Juneau, AK 99811-2500
Email: JDNorthCrossing@dowl.com

RE: JEDC Comments on Juneau Douglas North Crossing Project

Dear Juneau Douglas North Crossing PEL Study Team,

On behalf of the Board of Directors of the Juneau Economic Development Council (JEDC), I am writing to provide our comments on the Juneau Douglas North Crossing Project, which aims to connect Juneau with a more northerly point on Douglas Island. JEDC fosters a healthy and sustainable economic climate in Juneau and throughout Southeast Alaska. In collaboration with other organizations, we implement initiatives to maintain, expand, and create economic opportunities that help make Juneau a great (capital) city; strengthen key regional industries, promote entrepreneurship and small businesses, and develop talent. We appreciate the efforts of the Alaska Department of Transportation and Public Facilities (DOT&PF) and the City and Borough of Juneau (CBJ) in addressing the transportation needs of our community.

As a member of the Juneau Douglas North Crossing Stakeholder Advisory Committee, we appreciate the collaborative effort between DOT&PF and CBJ to explore the feasibility of building a second crossing/bridge. The importance of this project cannot be understated. Douglas Island is integral to the Juneau economic core providing commercial, residential, and recreational use. JEDC has long prioritized a second crossing as a key step for infrastructure development to facilitate economic growth of Juneau, including increased access developable land and coastline for future housing, recreation, and commercial development opportunities for current and new residents and businesses.

The JEDC Board of Directors expresses the following:

1. A crossing on the mainland closer to the population center of Juneau in the Mendenhall Valley better meets the purpose and need of the project from a transportation, energy efficiency, safety, and economic development perspective. Generally, the further north from the existing bridge, the better.
2. A landing on North Douglas that is closer to Eaglecrest and lands available for and targeted for development better meets the purpose and need of the project from a transportation, safety, energy efficiency, and economic development perspective. Generally, the further north from the existing bridge, the better.
3. JEDC encourages the timely completion of the Planning and Environmental Linkages (PEL) study so that our community can be closer to achieving a second crossing.

We support the project's goal of alleviating congestion during peak periods on the existing Douglas Island Bridge. The current bridge often experiences heavy traffic, and a second crossing would significantly improve traffic flow and reduce travel times for residents and visitors alike. Shorter distances for travelers will result in reduced fuel consumption.

We are concerned about the safety and emergency response implications of relying on a single bridge. In the event of a bridge closure or an event that blocks Egan/Glacier Highway, whether due to maintenance, accidents, or natural disasters, having an alternative route is crucial for ensuring the safety and well-being of our community, especially access to services at Bartlett Hospital.

Furthermore, an improved connection to Douglas Island should address the following needs:

- Alternate access and transportation infrastructure resilience
- Decreased traffic pressure on Douglas Island Bridge and its intersections

We believe that the potential for residential, commercial, industrial, and port development on the north and west of Douglas Island is an important consideration. A second crossing would facilitate these developments, contributing to the economic growth and prosperity of the region.

We appreciate the use of the PEL process to identify and evaluate the purpose and need for the project. It is necessary to also consider the environmental impacts and gather public input to ensure that the project aligns with our community's values and priorities. Thank you for doing that.

In conclusion, we strongly support the Juneau Douglas North Crossing Project. We want to reiterate our position that the alternatives that are further north from the existing bridge generally better meet the purpose and need of the project from a transportation, energy efficiency, safety, and economic development perspective. We urge DOT&PF and CBJ to continue moving forward with this important initiative. Thank you for considering our comments.

Sincerely,



Brian Holst
Executive Director
Juneau Economic Development Council

31b. Purpose and Need Statement and Preliminary Alternatives

DATE	ITEMS	PAGE
8/4/2022	Winson Smith, Juneau Audubon Society	1183
8/5/2022	Linda Shaw, NOAA Fisheries	1185
8/5/2022	Margo Waring	1187
8/5/2022	Ron Sommerville, Mendenhall Wetlands Study Group	1191
8/8/2022	Alex Wertheimer, Mendenhall Wetlands Study Group	1193
8/9/2022	Brenda Taylor	1197
8/15/2022	Liz Ortiz, Alaska State Historic Preservation Office	1199
8/19/2022	Margaret Custer, Southeast Alaska Land Trust	1201
8/19/2022	North Douglas Neighborhood Association	1204
8/20/2022	Teri Tibbett, Bonnie Brae Neighborhood Association	1208
8/22/2022	Katrina LeMieux, Alaska Dept. of Transportation & Public Facilities Statewide Environmental Office	1212

From: Winston Smith
To: Morgan McCammon
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Thursday, August 4, 2022 6:49:28 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

After reviewing the attached documents, I have a few comments listed below:

First, I think it is important to differentiate a **need** from a **desire** because **needs** should take priority over **desires** in reviewing various options. For example, redundancy for health and safety concerns is clearly a need, whereas access for economic development is more of a desire. I don't see any distinction in the document or attempt to prioritize goals and objectives PEL is seeking to accomplish.

Secondly, I perceive a bias in the existing document. Why should economic impact be listed above emergency response. Indeed, in my view emergency response is a need whereas, economic impact is a desire. Yet, in the list presented on page 3 has economic impact and developable land each at the top of the two columns of emerging needs. Also, development of growth areas is at the top of the needs list on page 4. This appears to be the driving influence in this process. In addition, in the list of goals to be met by various alternatives, enhance and protect public health and safety is near the bottom of the list.

Three, although providing infrastructure consistent with CBJ planning framework is included as a criterion, little emphasis appears to be given to practical considerations, such as whether an option is doable because of costs, environmental barriers, or beyond the CBJ planning framework or expectations, which should be more explicit and front and center.

Thank you.

Winston Smith
[redacted]

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon [redacted] wrote:

> Dear Stakeholder Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.
>
> We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.
>
> Please provide us with any comments you have on the draft purpose and need statement by **Friday,**

August 19, 2022. As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From:	Linda Shaw - NOAA Federal
To:	Morgan McCammon
Cc:	Molly Zaleski - NOAA Federal
Subject:	[EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date:	Friday, August 5, 2022 3:30:27 PM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Molly Zaleski and I looked over the Juneau Douglas North Crossing PEL Study - Purpose and Need Statement and have the following comments.

We support the following statement as important to the purpose and need of the project.

"Improve existing natural environmental conditions where possible and
avoid/minimize/mitigate adverse
impacts to the natural environment."

We felt the following two statements were seemingly contradictory.

"Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric
vehicles."

and

"Add roadway capacity and utility infrastructure to support the development of growth areas envisioned
on North and West Douglas Island"

Thank you for the opportunity to comment on the purpose and need statements.

LInda and Molly

Linda Shaw (she | her)
Wildlife Biologist, Alaska Region
NOAA Fisheries | U.S. Department of Commerce
Office: [redacted]
https://www.fisheries.noaa.gov/region/alaska

On Thu, Aug 4, 2022 at 4:55 PM Morgan McCammon [redacted]> wrote:

> Dear Technical Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of

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Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Margo Waring
To: Ronald
Cc: Morgan McCammon; [redacted] Teri Tibbett; Bartlett, Kristin; [redacted] Michael Stanley; [redacted] Brian Holst; [redacted] ; Robert Venables; [redacted] ; Wade Bryson; Christine Woll; [redacted] ; Cathy Schlingheyde; [redacted] Daniel King; Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; Katie Koester; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt; Alex Wertheimet; Bob Armstrong; Catherine Pohl; Dan Teske; Deb Rudis; Diane Mayer; Doug Larsen; Frank Rue; Jay Nelson; Laurie Craig; Matt Robus; Neil Stichert; [redacted] Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Friday, August 5, 2022 2:41:45 PM

You don't often get email from [redacted] Learn why this is important

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First, thanks to Ron for a clear statement of a clearly missing piece that was a major focus for the group I joined at Centential Hall. In addition, let me make a few additional comments. I note that the language of this document is vague, aspirational and often illogical.

Purpose

The purpose of the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study is to identify a north crossing corridor that will reduce dependency on the existing North Douglas Highway, improve network connectivity, reduce travel time and emissions, provide redundant access, improve emergency response time, and provide infrastructure consistent with City and Borough of Juneau's planning framework.

Need

The successful solution should address the following needs:

- Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island.

No growth is envisioned for North Douglas in any CBJ planning document.

The West Douglas planning document is due for a substantial review because the population projections and other constraints have changed dramatically, for example CBJ's adoption of a greenhouse gas goal.

- Provide redundancy and reduce travel times for public safety and emergency response in the event of traffic disruption on the North Douglas Highway, Douglas Island Bridge, or Egan Drive.

• Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency response.

The identified alternative(s) should also meet these additional goals:

• Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles.

Increasing miles available to be traveled on will, according to all studies, increase emissions. Juneau is a leader in per capita adoption of EVs. New federal incentives will likely increase adoption. It is hard to understand how increased miles increases the vialbility of EVs.

• Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development.

This is vague and highly questionable: how will increased miles reduce emissions (even if some trips are reduced in total miles, a bridge to North Douglas will increase traffic by accessibility. There are no plans for utility infrastructure improvements for North Douglas. Utility infrastructure and economic development are only part of the speculative concept of a satellite development.

• Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment.

• Improve access and connection to recreational, cultural, and subsistence resources.

• Enhance and protect public health and safety.

Logically, development of a second crossing, even if a tunnel, will not improve the existing natural environment as there is no place where this is "possible". The natural environment may be changed but not "improved." Adverse impacts to the natural environment cannot be avoided. That leaves only mitigation and minimization.

• Satisfy applicable federal, state, and local plans, policies, and regulations.

I would like to see how construction and use of a second crossing will help meet CBJ's climate goals.

On Fri, Aug 5, 2022 at 1:25 PM Ronald [redacted] > wrote:

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>
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expressed and listed. One of the important themes left out was “protection of the existing natural environment within the study area.” This of course refers to the Refuge in particular. Although many of us would support a second crossing to Douglas, the solution is in the details. Leaving out the communities concerns for environmental issues as a major theme is a major oversight. Every meeting I have attended there has been a clear expression from the public to make environmental issues a major part of this study.

Under the “need” category your “additional goals”, other than advocacy details, again skim over the environmental issues except to say, “Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts on the natural environment.” Why not say, “develop ways to minimize impacts on the Mendenhall Refuge.”

One of the first meetings I attended, I offered that a major need was to identify all of the past crossing studies, recommendations and results with an assessment of why the proposals were unsuccessful. Except for the first study which proposed that the major option was from the Mendenhall Peninsula to North Douglas, the others had varying degrees of impacts on the Refuge. In my humble opinion, the potential impacts on the Refuge is one of the major stumbling points for this proposal and efforts to minimize those concerns early on in this process is a major mistake.

Thanks again for the draft.

Ron Somerville

From: Morgan McCammon [redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]

[redacted] Daniel King [redacted] >
Cc: Heidemann, Marie E (DOT) <[redacted]>; McNally, Chrissy A (DOT) [redacted]>; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]ov>; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) <[redacted]>; Murray, Nicholas W (DOT) [redacted]ka.gov>; irene.gallion [redacted]>; John Bohan [redacted]rg>; Alec Venechuk <[redacted]>; Katie Koester [redacted].org>; Steven Noble <[redacted]; Renee Whitesell [redacted]; Rachel Steer <[redacted]>; Nina Keller Horne [redacted]m>; Theresa Dutchuk [redacted]>; Kristen Hansen [redacted] Jovie Garcia [redacted] Mike Hall [redacted]m>; Michael Horntvedt [redacted]>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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Best regards,

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Public Involvement Specialist

DOWL

[redacted]

From: Ronald
To: Morgan McCammon; [redacted] "Daniel King"
Cc: Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; "Katie Koester"; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt; Alex Wertheimet; Bob Armstrong; Catherine Pohl; Dan Teske; Deb Rudis; Diane Mayer; Doug Larsen; Frank Rue; Jay Nelson; [redacted] Matt Robus; Neil Stichert; richard.carstensen@gmail.com; Ron Somerville; Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Friday, August 5, 2022 1:25:33 PM

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Thanks again for the draft.

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From: Morgan McCammon [redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted] Daniel King [redacted]>
Cc: Heidemann, Marie E (DOT) [redacted]; McNally, Chrissy A (DOT) [redacted]; Schmidt, Joanne M (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted] LeMieux, Katrina K (DOT) <[redacted]; Phillips, Kaden S (DOT) <[redacted]>; Kolwaite, Douglas S (DOT) [redacted]>; Murray, Nicholas W (DOT) [redacted]>; irene.gallion [redacted]>; John Bohan <J[redacted]>; Alec Venechuk [redacted]>; Katie Koester <[redacted]; Steven Noble [redacted]>; Renee Whitesell <[redacted]; Rachel Steer <[redacted]>; Nina Keller Horne [redacted]>; Theresa Dutchuk [redacted]>; Kristen Hansen <[redacted]>; Jovie Garcia [redacted]>; Mike Hall [redacted]; Michael Horntvedt <[redacted]>
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Public Involvement Specialist

DOWL

From: Peggy and Alex
To: Margo Waring
Cc: Ronald; Morgan McCammon; [redacted]; Teri Tibbett; Bartlett, Kristin; [redacted]; Michael Stanley; Krista Garrett; rebecca@sawcak.org; [redacted]; Brian Holst; [redacted]; Robert Venables; [redacted]; Wade Bryson; Christine Woll; [redacted]; jonhelfetz; [redacted]; Cathy Schlingheyde; [redacted] Daniel King; Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; Katie Koester; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt; Bob Armstrong; Catherine Pohl; Dan Teske; Deb Rudis; Diane Mayer; Doug Larsen; Frank Rue; Jay Nelson; Laurie Craig; Matt Robus; Neil Stichert; Richard Carstensen; Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Monday, August 8, 2022 2:07:13 PM

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Thanks, Ron and Margo, for your insightful comments. Ron is spot on that protection of the existing natural environment should be in the list of priority "Needs". Burying in under "Additional Goals" makes it seem like a secondary consideration. In the previous analysis of preferred crossings (http://www.jdnorthcrossing.com//documents/JDNC_Previous_Studies_Summary_Report_FINAL.pdf) impact on the environment in general and the Refuge in particular was a major theme of public comment, leading to the identification of crossing sites with no to minimal impact on the Refuge. I believe that the study team is taking public comment until September 30 at JDNorthCrossing@dowl.com , and have been told that they have received few comments that support environmental protection as a priority. So think about sending them a few words of encouragement as individual commenters.

Alex

On Fri, Aug 5, 2022 at 2:41 PM Margo Waring [redacted]> wrote:

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Thanks again for the draft.

Ron Somerville

From: Morgan McCammon <[redacted]>
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]

[redacted]; Daniel King <[redacted]>
Cc: Heidemann, Marie E (DOT) <[redacted]>; McNally, Chrissy A (DOT) <[redacted]>; Schmidt, Joanne M (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted]v>; Gentemann, Christy D (DOT) [redacted]; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) [redacted]>; Kolwaite, Douglas S (DOT) <[redacted]; Murray, Nicholas W (DOT) <[redacted] irene.gallion [redacted]; John Bohan <[redacted]>; Alec Venechuk [redacted] Katie Koester [redacted]>; Steven Noble <[redacted]>; Renee Whitesell [redacted]; Rachel Steer [redacted]; Nina Keller Horne [redacted]>; Theresa Dutchuk [redacted]m>; Kristen Hansen [redacted]; Jovie Garcia [redacted]>; Mike Hall [redacted]; Michael Horntvedt [redacted]metrix.com>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Brenda Taylor
To: Morgan McCammon
Cc: [redacted]
Daniel King; Heidemann, Marie E (DOT); McNally, Chrissy A (DOT); Schmidt, Joanne M (DOT); Lockwood, Gregory K (DOT); Gentemann, Christy D (DOT); LeMieux, Katrina K (DOT); Phillips, Kaden S (DOT); Kolwaite, Douglas S (DOT); Murray, Nicholas W (DOT); irene.gallion; John Bohan; Alec Venechuk; Katie Koester; Steven Noble; Renee Whitesell; Rachel Steer; Nina Keller Horne; Theresa Dutchuk; Kristen Hansen; Jovie Garcia; Mike Hall; Michael Horntvedt
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Tuesday, August 9, 2022 11:40:49 PM

Some people who received this message don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan et al,

Thanks for sending this out.

I have a few questions...
- The maps that you had available at the Centennial Hall meeting were fascinating and informative. Is it possible to get electronic copies of them?
- You mentioned that you'd be working on the criteria for ranking options, will they all be based off of the "needs" statements or will there be other criteria as well. I'm particularly interested in assessing impact to neighborhoods. Will choosing options become a matter of which neighborhoods protest most loudly or is there a way to generate more comprehensive understandings of neighborhood impact? Some questions that I'd consider (I realize that some are questions asked of individuals and others that are more broadly assessed):

- If this proposed crossing were to go up in your front or back yard/view scape, would you still be in favor of it?
- How much extra would you be willing to pay for a tunnel if it would not negatively impact any neighborhoods?
- Which neighborhoods (where and how many) will be negatively impacted by this choice? Viewscape, increased traffic, changed drainage/erosion/wind, superseded right of way?

Thanks,

Brenda Taylor

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon <[redacted]> wrote:

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Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Nina Keller Horne

From: Morgan McCammon
Sent: Monday, August 15, 2022 1:20 PM
To: Ortiz, Liz M (DNR)
Cc: Heidemann, Marie E (DOT); Steven Noble; Renee Whitesell; Nina Keller Horne
Subject: RE: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

Good afternoon Liz,

Thank you for this input. I will share this with the study team.

Morgan McCammon
Public Involvement Specialist

DOWL
[redacted]

dowl.com

From: Ortiz, Liz M (DNR) <[redacted]>
Sent: Monday, August 15, 2022 12:30 PM
To: Morgan McCammon [redacted]>
Cc: Ortiz, Liz M (DNR) [redacted]>
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

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3130-1R FHWA 2022-00997

Good afternoon Morgan,

The Office of History and Archaeology / State Historic Preservation Office received your documentation and request for comment on August 4, 2022.

Following review of the PEL Study Purpose and Need Statement, and notes from the technical advisory committee and public meetings, our office does not have additional comments. We find the document satisfactory, and look forward to continued consultation on this project.

Thank you for the opportunity to review and comment. Please contact our office with any questions or if we can be of further assistance.
-Liz

Liz Ortiz, M.A. Archaeologist II
Review and Compliance
Alaska State Historic Preservation Office
Office of History and Archaeology
Department of Natural Resources
[redacted]
Due to Covid-19 concerns, we are on a hybrid schedule. Email is the best communication method.

From: Morgan McCammon [redacted]
Sent: Thursday, August 4, 2022 4:54 PM
To: Daugherty, Leslie K (DOT) [redacted]; Alimi, Adeyemi S (DEC) [redacted]; Kanouse, Kate M (DFG) [redacted]; Churchwell, Roy T (DFG) [redacted]; Ortiz, Liz M (DNR) [redacted]; Patty Wahto (DOT-sponsored) [redacted]; david.gann [redacted]; [redacted] Cody Hargreaves [redacted] Teske, Daniel J (DFG) [redacted]; Purves, Nathan A (DOT) [redacted]; Bjornlie, Nichole L [redacted]; Markegard, Sarah I [redacted]; Kroes, Preston M (DNR) [redacted]
Cc: Heidemann, Marie E (DOT) [redacted]; McNally, Chrissy A (DOT) [redacted]; Schmidt, Joanne M (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) [redacted] Kolwaite, Douglas S (DOT) [redacted]; Murray, Nicholas W (DOT) [redacted]; irene.gallion [redacted] John Bohan [redacted]; Alec Venechuk [redacted] Katie Koester [redacted]; snoble [redacted]; Renee Whitesell [redacted]; Steer, Rachel (DOT Sponsored) [redacted]; Nina Keller Horne [redacted]; Dutchuk, Theresa (DOT sponsored) [redacted] Jovie Garcia [redacted]; Mike Hall [redacted]; Michael Horntvedt [redacted]
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

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Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From:	Morgan McCammon
To:	Margaret Custer
Cc:	Krista Garrett; Steven Noble; Renee Whitesell; Nina Keller Horne
Subject:	RE: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date:	Friday, August 19, 2022 2:20:00 PM

Hi Margaret,

Thank you for your input. I will share this with the team.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Margaret Custer <[redacted]>
Sent: Friday, August 19, 2022 2:15 PM
To: Morgan McCammon [redacted]>
Cc: Krista Garrett [redacted]>
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

SEALT has two pieces of feedback for the PEL Purpose & Need Statement that are essential to include. These are concise points for your team to review alongside the other committee members' feedback, and are not intended as public comments, so please let me know if you would like further detail.

We are primarily concerned about impacts to the Mendenhall Wetlands State Game Refuge and protected areas (such as SEALT mitigation sites), and not necessarily opposed to a second crossing if it satisfactorily addresses these needs:

Environmental Impact
Avoiding, minimizing, and mitigating impacts to the environment should be a primary goal for the study. The Mendenhall wetlands complex is indivisible from Juneau's overall environmental health, as it underpins the community's subsistence resources, the region's biodiversity, and critical access to sportfishing and hunting for all residents. A second bridge that crosses through the Refuge has the potential to bisect and disrupt the biological and hydrologic functions that support 227 species of birds and many other important species of migratory and resident animals every year. Therefore, protecting the Mendenhall Wetlands State Game Refuge and surrounding critical wildlife habitat should not be "additional" considerations. A serious PEL study will prioritize the avoidance, minimization, and mitigation of environmental impacts as alternatives are considered for development. This additional goal should be raised to a primary "need":

"Improve existing natural conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment."

Scenic Character

Juneau's scenic character is defined by the Mendenhall wetlands, and should be listed as an additional goal or priority for the study. The visual characteristics of migrating birds, salmon, marine mammals, bears, and uninterrupted views of the tidal zones and mountains are uniquely representative of Juneau, and a vibrant example of the greater region's scenic values. More than 1m visitors come to Juneau every year to enjoy the scenic character here, and residents are active on numerous trails overlapping with the Refuge and with SEALT conservation properties around it. A bridge spanning or filling the wetlands between the mainland of Juneau and Douglas Island would irretrievably damage this scenic character, and redefine what Juneau has to offer as both a visitor destination and a community that values free, wild, open spaces.

In addition to the iconic visual features of the community, there are the sounds, smells, and sensations of visiting pristine and healthy wetlands that cannot be replicated with segmented spaces between bridges. The sounds of birds and laughing people, and the fragrances of living plants and ocean life, all travel for miles in this wide open space, which adds to the attraction and enjoyment of the wetlands by all types of users. New bridge traffic across the Refuge would introduce a cacophony of vehicle noise and odor in this peaceful place - not just disrupting wildlife, but also residential neighbors and trail users. It would bring a sense of congestion and crowding to one of the only wide open spaces in Juneau that people and wildlife both go to rest, recreate, and find food. An example of an additional goal that could be added on page 4:

"Improve or maintain the visual, cultural, and scenic identity of Juneau and Douglas Island."

We will have more specific comments as the alternatives are drafted and shared with the advisory committees.

Thank you,

Margaret Custer · Executive Director
Southeast Alaska Land Trust
[redacted] · southeastalaskalandtrust.org

On Thu, Aug 4, 2022 at 4:53 PM Morgan McCammon [redacted] > wrote:

> Dear Technical Advisory Committee Members,
>
> Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.
>
> We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your

review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON DRAFT PURPOSE AND NEED STATEMENT – PEL STUDY

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the draft JD North Crossing PEL Study Purpose and Need Statement, and has the following comments.

As an initial matter, NDNA encourages DOWL and DOTPF to review the Joint Statement of Mendenhall Wetlands Stakeholder Groups on the North Douglas Crossing Project, which was developed in 2007 in response to the Sheinberg Report. (This statement is appended to these comments.) We previously sent this statement to you, along with other documents prepared by our committee, and believe that many of the concerns expressed are germane to the PEL Study and the draft purpose and need statement.

NDNA was actively involved in prior efforts undertaken to identify a location for a second crossing of Gastineau Channel north of the existing bridge, in particular the studies prepared in 2005 for DOTPF by HDR Alaska, Inc., and in 2007 by Sheinberg Associates. As indicated at that time, based on the results of a survey NDNA conducted of all North Douglas property owners, which demonstrated a wide diversity of views, we did not take a position whether a crossing should be constructed and, if so, where. NDNA instead emphasized that as the neighborhood that will be most directly affected by a crossing, the CBJ should commit to an area planning process for North Douglas under the framework of its comprehensive plan. This request was endorsed in the Sheinberg Report but no further progress has been made toward that end. NDNA reiterates its position regarding the need for a North Douglas area planning process.

Consistent with that position, NDNA recommends that the PEL purpose and need statement be amended to add as an "additional goal" that any identified crossing alternatives should avoid/minimize/mitigate adverse impacts on the North Douglas neighborhood. This is the same standard the need statement articulates for impacts on the natural environment (in the third bullet point) but should be stated separately for impacts to our neighborhood. We further contend that it will be necessary for DOWL and DOTPF to engage directly with NDNA and other North Douglas groups (e.g., Bonnie Brae Neighborhood Association and residents of Bayview and beyond) in the process of identifying alternative locations for a crossing.

NDNA also believes that the "additional goal" relating to the natural environment should specifically refer to the Mendenhall Wetlands State Game Refuge. Both state and federal law impose significant restrictions on running transportation corridors through wildlife refuges and similar protected lands (commonly called Section 4(f) properties), and the need to "avoid/minimize/mitigate" adverse impacts to the Refuge must be thoroughly addressed in the PEL study process.

The “additional goal” relating to the natural environment should also be expanded in two other respects (1) to recognize the potential impacts of climate change and address how those impacts relate to the stated need for a north crossing, and (2) to encourage comprehensive studies of the wildlife and fishery resources of the upper Fritz Cove area, including the estuarine and nearshore environment of the Mendenhall River delta, Entrance Point, and the waters between Spuhn Island and North Douglas.

Finally, we strongly encourage that the purpose and need statement should reflect a commitment by DOWL and DOTPF of full transparency in the PEL study. This means a thorough presentation of information and data on the cost of a crossing; a detailed analysis of how a crossing would tie in to the North Douglas Highway, including how many properties would be displaced at the terminus; and how traffic in that area and all along the highway would be affected. This information should be made public ***before*** any crossing alternatives are identified for further study in a NEPA process.

NDNA appreciates the opportunity to comment on the draft purpose and need statement, and looks forward to working with DOWL and DOTPF in the PEL study process.

JOINT STATEMENT OF MENDENHALL WETLANDS STAKEHOLDER GROUPS ON THE NORTH DOUGLAS CROSSING PROJECT

The undersigned stakeholder groups represent individuals who use or have a direct interest in the Mendenhall Wetlands State Game Refuge (MWSGR). We join in this statement regarding the North Douglas crossing project and the current effort to identify a community preferred alternative for a crossing corridor.

The report of Sheinberg Associates (April 2007) culminates a several month process of gathering information and data concerning a North Douglas crossing. We commend the project team for its efforts in seeking comment from various stakeholder groups and individuals. The report compiles a substantial amount of information that is of value to the City and Borough of Juneau and its citizens as they consider this project. In particular, the report identifies three primary concerns the public has about the project: (1) impact on the MWSGR; (2) costs of construction; and (3) impacts to airport operations. With these in mind, we agree on the following points:

1. The report states assumptions about which crossing corridor will have the least environmental impact on the MWSGR. Until an EIS is completed, however, the public will not have a true understanding of the environmental impacts associated with various crossing alternatives. For instance, if a demonstration is made that a crossing must traverse the MWSGR because no feasible alternative exists – a showing that has not been made to date – we believe it will be necessary for such a crossing to be a structure-supported roadway, not a fill embankment. An EIS that analyzes all feasible alternatives should be completed ***before*** a preferred crossing corridor is identified.

2. The report surveyed public opinion using cost figures that do not reflect the true cost of a crossing project. The full cost of a crossing must take into account (1) the cost of a structure-supported roadway; (2) costs associated with improvements that will be necessary to Egan Drive, *e.g.*, separated-grade intersections; and (3) costs that may be associated with connecting the crossing to a bench road on North Douglas. Without a full understanding of ***all*** the costs associated with the crossing, the CBJ and the public are not in a position to make a true evaluation of which corridor alternative is the most affordable and represents the best value.

3. According to the Project Summary Report (May 2005), at sec. 9.6.1, a crossing at Salmon Creek (1) avoids the MWSGR; (2) is the shortest crossing; (3) is the least costly "all structure" alternative; (4) diverts traffic from the existing Douglas Bridge; and (5) would have "[m]inimal environmental impacts compared to other options." A crossing at Salmon Creek would serve identified project objectives of improved travel access between the Juneau mainland and Douglas Island, redundancy, and access to emergency services. A crossing at Salmon Creek would have the least impact on airport operations. Given public concerns regarding this project, in particular, impacts to MWSGR and project costs, a crossing alternative at Salmon Creek must be given serious consideration by the CBJ. The process to identify a community preferred alternative did not include the Salmon Creek alternative, which was a mistake.

Based on the foregoing, we believe it is premature to identify a crossing corridor now. We urge the Assembly not to act on the recommendation for stating a preference for a crossing at Vanderbilt Hill at this time. The Assembly should instead (1) move forward promptly to promote completion of an EIS that analyzes all reasonable alternatives; (2) refine the estimates of project costs to include all associated costs; and (3) take a hard look at the Salmon Creek alternative.

We do not oppose a North Douglas crossing. But if such a project is to be built, it must be done right. The decision to identify a crossing corridor must be based on a full understanding of the environmental impacts of the project and real comparisons of project costs. The current and future CBJ public will be well-served by a process that provides a comprehensive understanding of all aspects of this project and the merits of the various alternatives.

Steve J. Zmu BOARD MEMBER Date: 4/26/07
Juneau Audubon Society

Chair Date: 7/25/07
Mendenhall Refuge Citizens Advisory Group

PRESIDENT Date: 7/26/07
North Douglas Neighborhood Association

Juneau Douglas North Crossing PEL Study Purpose & Need Statement

Introduction

The City and Borough of Juneau (CBJ) has partnered with the State of Alaska Department of Transportation and Public Facilities (DOT&PF) to study a possible transportation corridor to connect mainland Juneau with the north end or east end of Douglas Island. Since the 1980s, a connection has been studied but not progressed beyond identification and recommendation of preliminary alternative alignments.

DOT&PF chose the Planning and Environmental Linkages (PEL) process to identify and evaluate a purpose and need for connecting Juneau with Douglas Island. The PEL process will provide opportunities for public input and involvement. The analyses conducted may be incorporated into a future National Environmental Policy Act (NEPA) process.

The study area considers potential crossing locations between Douglas Island and mainland Juneau in the channel area north of the existing Douglas Island Bridge.

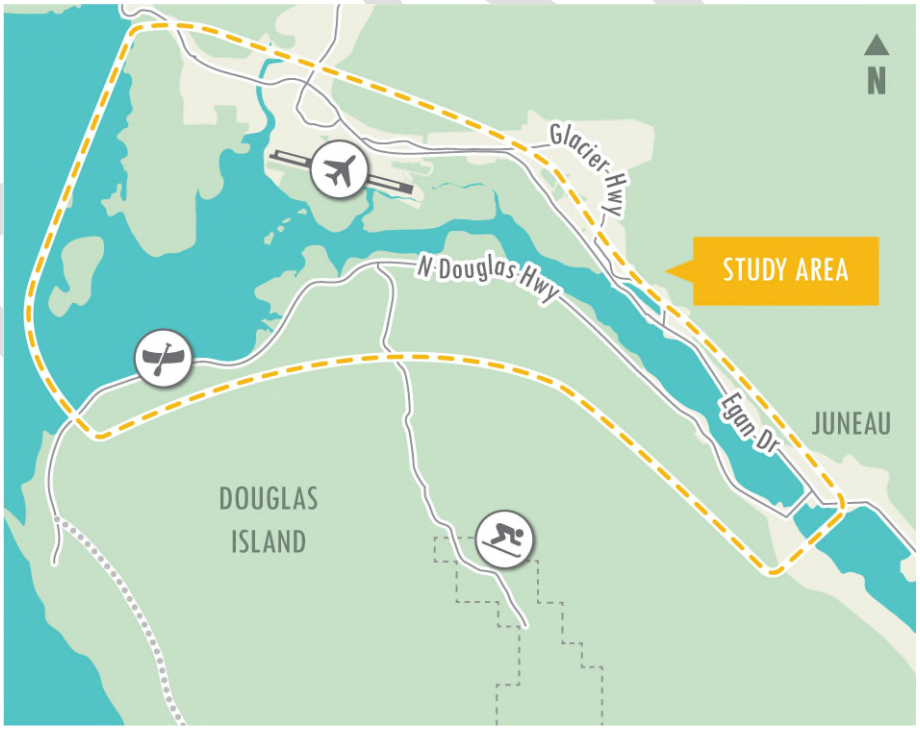


Figure 1: Study Area

This document presents a draft purpose and need for the Juneau Douglas North Crossing PEL Study. Contributions by project participants, including the Technical Advisory and Stakeholder Advisory Committees and the public, helped identify the study purpose and need themes, and problems to be solved. The purpose and need statement leverages the themes discussed and baseline social, environmental, and economic data into a clear statement of what the study is intended to do, and why the study of a second crossing may or may not be / is or is not needed. After the PEL study is complete, one or more projects may advance for more environmental review and engineering design through the NEPA process.

What is a Purpose and Need Statement?

One of the first steps in the PEL process is to develop a purpose and need statement, which can serve as a vision for future project(s) and supply the basis for developing criteria for comparing and evaluating alternatives, developing a range of alternatives, and selecting a recommended alternative(s). The purpose and need statement must clearly and concisely describe the transportation problem(s) and other needs without offering a specific solution. Instead, it supplies information to help identify solutions to identified problem(s). The "purpose" states why DOT&PF is proposing the study and outlines the positive outcomes they hope to achieve by proposing solutions through the PEL process. The "need" describes the key problem(s) the PEL process is addressing and explains the underlying causes of those problems.

The project's Purpose and Need Statement was developed using guidance provided in the following:

- Alaska Environmental Procedures Manual (Section 5.3.1)
- Alaska Highway Preconstruction Manual (Section 430.3)
- Federal Highway Administration (FHWA) Technical Advisory T6640.8A
- American Association of State Highway and Transportation Officials (AASHTO) Practitioner's Handbook – Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects

When transitioning to a NEPA review process, the purpose and need statement must also meet the requirements of 23 CFR 1502.13 for Environmental Impact Statements. These requirements include consultation of appropriate federal and state resource agencies, tribes, and the public during the development of the purpose and need statement, so it can be used to inform the development of alternatives and the PEL study recommendations. The purpose and need statement is dynamic and may evolve as new information is obtained during the project development process, including ongoing input from project stakeholders and the public.

DRAFT

Public and Agency Involvement

Public and agency involvement is critical to developing a successful purpose and need statement. This includes involving the PEL study's technical and stakeholder advisory committees, as well as the public, tribes, businesses, services, non-profit, community and neighborhood organizations. Public and agency involvement for the purpose and need, as well as other aspects of the study, follows relevant planning regulations[1] and includes:

- Establishing continuous public and agency involvement opportunities throughout the process that provide timely information about issues and decision-making processes
- Providing opportunities for public review and comment at key decision-making points
- Holding advisory and public meetings that give reasonable access to information and adequate time for review and comment
- Considering and responding to comments and input received
- Periodically reviewing the effectiveness of procedures and strategies to ensure a full and open process
- Considering the opinions, actions, and relevant information from other parties
- Cooperating with stakeholders and involved parties to work together to achieve a common goal
- Supplying timely public notices

Virtual Technical Advisory and Stakeholder Advisory Committee meetings and a Virtual Public Open House meeting introduced the PEL process, shared background information and gave committee members and the public opportunities to comment on existing conditions. All meetings sought input on issues and concerns, as well as emerging themes to be captured in the study's purpose and need statement. The themes state the key problems experienced by residents and observations on issues within the study area. The emerging themes are:

- Economic Impact
- Emergency Response
- Travel Time and Congestion
- Active Transportation Facilities and Recreation
- Developable Land
- Redundancy
- Population
- Utilities
- Environmental Impacts
- Neighborhood Impacts

[1] 23 CFR 450.210 and 450.316; DOT&PF 2021 (Section 303 Public and Agency Involvement Requirements)

DRAFT

Purpose

The purpose of the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study is to identify a potential north crossing corridor that could reduce dependency on the existing North Douglas Highway, improve network connectivity, reduce travel time and emissions, provide redundant access, improve emergency response time, and provide infrastructure consistent with City and Borough of Juneau's planning framework.

Need

A successful solution should address the following needs:

- Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island.
- Provide redundancy and reduce travel times for public safety and emergency response in the event of traffic disruption on the North Douglas Highway, Douglas Island Bridge, or Egan Drive.
- Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency response.

The identified alternative(s) should also meet these additional goals:

- Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles.
- Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development.
- Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment.
- Improve access and connection to recreational, cultural, and subsistence resources.
- Enhance and protect public health and safety.
- Satisfy applicable federal, state, and local plans, policies, and regulations.
- Consideration of impacts to neighborhoods and residents from each of the proposed alternatives.

DRAFT

From: LeMieux, Katrina K (DOT)
To: Morgan McCammon
Cc: Kolwaite, Douglas S (DOT); Heidemann, Marie E (DOT); Gentemann, Christy D (DOT)
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement
Date: Monday, August 22, 2022 8:58:16 AM

You don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good morning,

I apologize that this is a business day late but I was reviewing not only the PN Statement but also the comments that have been received to date (that I have been included on). My predominant comment is for the clarification of how a/this PEL study differs from the historic studies done in the past for this effort. It was clear in the responses received that there may be some level of misunderstanding on this point. A PEL Purpose and Need must be a statement of a transportation problem, which I think the team has presented in this statement; however, the feedback received is concerned that the study isn't prioritizing potential environmental impacts strongly enough. I think an effort should be made, directly with commenters and here forward on the project, to thoroughly explain this study's unique process and all the future opportunities and requirements for the identification of the LEDPA, and hopefully this will assuage some of this public concern about the assumed lack of prioritization of this topic.

I apologize that I was not able to attend recent Alternatives Development Workshop as I was headed out of state that day. You may have thoroughly discussed all of these points with the public and they still feel the need to repeat their concerns, as it is important to them and as it would be to the project. This was just my only comment to the PN Statement provided for comment.

Thank you,
Katrina

Katrina LeMieux | NEPA Program Manager
Alaska Dept. of Transportation & Public Facilities
Statewide Environmental Office | Design & Engineering Services
[redacted]

From: Morgan McCammon [redacted]
Sent: Thursday, August 4, 2022 4:53 PM
To: [redacted]
Despain, Timothy J (DPS) [redacted];
Holst, Brian (CED sponsored) [redacted] robert venables

<[redacted]
[redacted] Tibbett, Teri (DOH) [redacted] Schlingheyde, Catherine (LEG) <[redacted]; King, Daniel (CED sponsored) [redacted]>
Cc: Heidemann, Marie E (DOT) <[redacted]>; McNally, Chrissy A (DOT) [redacted]>; Schmidt, Joanne M (DOT) <[redacted]; Lockwood, Gregory K (DOT) [redacted]; Gentemann, Christy D (DOT) [redacted]>; LeMieux, Katrina K (DOT) [redacted]; Phillips, Kaden S (DOT) [redacted]>; Kolwaite, Douglas S (DOT) <[redacted]>; Murray, Nicholas W (DOT) <[redacted]>; irene.gallion <[redacted]>; John Bohan <[redacted]; Alec Venechuk <[redacted]>; Katie Koester <Katie.Koester@juneau.org>; snoble [redacted]; Renee Whitesell [redacted]>; Steer, Rachel (DOT Sponsored) [redacted]; Nina Keller Horne [redacted]; Dutchuk, Theresa (DOT sponsored) [redacted]; Jovie Garcia <[redacted]>; Mike Hall [redacted]>; Michael Horntvedt [redacted]>
Subject: Juneau Douglas North Crossing PEL Study - Purpose and Need Statement

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Stakeholder Advisory Committee Members,

Thank you for your ongoing contribution to the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study, which DOWL is undertaking on behalf of the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities.

We shared with you a draft purpose and need statement for the PEL Study at our recent Alternatives Development Workshop on July 19th. We have attached a full copy of this revised statement for your review and comment.

Please provide us with any comments you have on the draft purpose and need statement by **Friday, August 19, 2022.** As always, if you would like to meet with the project team to discuss this or any other topic, please reach out and we would be happy talk with you.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

31c. Screening Criteria

DATE	ITEMS	PAGE
12/20/2022	Southeast Alaska Land Trust	1215
1/9/2023	Margo Waring	1220
1/11/2023	Dave Hanna, Access Alaska Coalition	1223
1/11/2023	Linda Shaw, NOAA Fisheries	1225
1/13/2023	Amy Jensen, United States Environmental Protection Agency Region 10 Water Division	1230
1/30/2023	Mendenhall Wetlands Study Group	1232
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2/1/2023	Ron Somerville, Juneau Shooting Sports Foundation	1258
2/1/2023	Ryan Beason, Territorial Sportsmen	1259
2/3/2023	Gary Mendivil, Alaska Department of Environmental Conservation	1260
2/3/2023	Jesse Lindgren, Alaska Department of Fish and Game Habitat Section	1262
2/3/2023	Roy Churchwell, Alaska Department of Fish and Game Survey Response	1264
2/3/2023	Randal Vigil, United States Army Corps of Engineers	1265
2/3/2023	Douglass Cooper, U.S. Fish and Wildlife Service	1269
2/3/2023	Matt Robus, Mendenhall Wetlands Study Group	1274
2/3/2023	Southeast Alaska Land Trust	1276
2/7/2023	Megan Hillgartner, Alaska Department of Natural Resources Division of Mining, Land and Water	1280
2/8/2023	Barb Mecum Survey Response	1283

SEALT Comments and Questions on Juneau Douglas North Crossing PEL Study Materials

December 20, 2022

The Southeast Alaska Land Trust (SEALT) has several pieces of feedback for the PEL Study's Purpose & Need Statement, Recommended Alternative Selection Criteria, and Preliminary Alternatives Map. As we have communicated before, SEALT is primarily concerned about impacts to the Mendenhall Wetlands State Game Refuge and protected areas (such as SEALT mitigation sites).

In this document, we have provided feedback and recommendations in five categories. We also have questions for the study team in each category and are requesting that responses to these questions be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

Consultation with Resource Agencies

Consultation with the relevant resource agencies (e.g., USFWS, ADF&G, NOAA), is essential for conducting a high-quality study. The Technical Advisory Committee meetings are insufficient for achieving this purpose; aside from the fact that agency representatives located outside of Juneau could not attend the exclusively in-person meetings, the materials were not shared ahead of time, or in a format that would allow for thoughtful consideration and useful, expert input. The study team must consult directly and individually with each agency regarding the preliminary alternatives and screening criteria.

SEALT recommends:

1) The study should engage in direct consultation with agencies who maintain datasets and technical expertise that should inform this study, including, at minimum: USFWS, ADF&G, ADEC, DNR, USFS, and NOAA Fisheries.
2) Consultations should be scheduled to allow agency representatives located outside of Juneau to attend and materials should be provided beforehand to facilitate meaningful engagement and feedback.
3) These consultations should include discussion of important resources likely to be impacted by each alternative location and the availability of the best data sources for understanding and evaluating those impacts.
    - For example, the Level 2 analysis outlined in the Recommended Alternative Selection Criteria relies heavily on GIS analysis. State and federal resource agencies are the subject matter experts and should be consulted regarding the best available data.
4) Consultation steps should be identified in the Recommended Alternative Selection Criteria document.
    - Page 7 of the Recommended Alternative Selection Criteria document states "The decision of which alternatives ultimately advance to detailed alternative development will be based on professional judgement." This must include the professional judgment of the resource agencies.

Additionally, one of the Level 2 screening criteria is "Level of Technical Advisory Committee support: supportive vs. opposing comments received." **Please provide additional information regarding how and**

when during the PEL study process these comments will be solicited. The TAC meetings are insufficient for collecting these comments as no materials were provided ahead of time, preventing meaningful engagement by the committee members. It is unreasonable to expect on-the-spot comments.

Questions:

1) **At what point in the PEL study will you be engaging in direct consultation with relevant agencies?**
2) **How and when will you be soliciting supportive/opposing comments for review in Level 2 screening?**

Consultation with Tribes

The Recommended Alternative Selection Criteria should include direct consultation with local Tribal governments. The Stakeholder Advisory Committee meetings are insufficient for engaging with the appropriate representatives on the impacts of the proposed alternatives. Consultation with the traditional landowners and stewards is essential, particularly to identify and avoid impacts to sacred cultural sites that may not be a part of publicly-available data sets.

SEALT recommends, at minimum, a consultation with the Central Council of Tlingit and Haida Indian Tribes of Alaska and with Douglas Indian Association, who both have traditional and documented claims within the study area. We suggest the following points of contact:

- Raymond Paddock, r[redacted]
- Heather Gatti, [redacted]
- Sarah Dybdahl, [redacted]
- Andrea Cadiente-Laiti, [redacted]

Question:

1) **At what point in the PEL study will you be engaging in direct consultation with local Tribal governments?**

Data Transparency

The PEL study should provide the Technical Advisory Committee members and consulting resource agencies additional transparency regarding the data used in screening the preliminary alternatives.

Areas requiring explanation of data use:

1) Additional information about how past studies have been or will be incorporated into this analysis is necessary. Either Level 1 or Level 2 screening should include criteria based on past study and consideration.
    - For instance, if a materially similar alternative was considered in a past study, provide the outcome of that study and the rationale for including it in this PEL study.
2) The Recommended Alternative Selection Criteria Appendix B references an "Environmental Setting Report" (DOWL 2022). This does not appear to be included on the PEL Study website; this should be made available for review by the Technical Advisory Committee and consulting resource agencies.
3) A list of the specific GIS data that will be used in the Level 2 screening criteria should be published.
4) The Purpose and Need Statement references traffic analyses; these traffic analyses should be cited and made publicly available.

Additionally, and perhaps most importantly, the results of the Level 1 and Level 2 screening for the final alternatives identified by the PEL study should be shared with the Technical Advisory Committee (relevant resource agencies). The federal and state agencies are the subject matter experts on the criteria being considered and should review the results to ensure that data is interpreted correctly. For example, in Level 1 screening, one of the criteria is "contaminated sites directly affected: yes/no". The Alaska Department of Environmental Conservation should have the opportunity to review the results of the screening to verify that their data has been interpreted correctly.

Questions

1) **How will the Environmental Setting Report, GIS screening data, and traffic analyses be made available for review by the Technical Advisory Committee?**
2) **How and when will the results of the Level 1 and Level 2 screening for the final alternatives be shared with the relevant resource agencies?**

Process and Engagement

ADOT should clarify the role of the PEL study in fulfilling its National Environmental Policy Act (NEPA) obligations and whether the agency is planning for project alternatives to be studied in an environmental impact statement (EIS) or environmental assessment (EA). It is important that the public, stakeholders, and consulted entities understand the process with which they are engaging in order to be able to do so effectively. Moreover, the decision about whether to complete an EA or EIS should be made in consultation with the entities described above.

SEALT Recommends:

Regardless of how ADOT plans to fulfill NEPA obligations, a no-build alternative must be considered. At a minimum, the Recommended Alternative Selection Criteria document should clearly outline why the no-build alternative is not being included in Level 1 and Level 2 screening. Additionally, the data supporting the PEL's draft purpose and need sections should be disclosed. Without understanding why alternate access and decreased traffic pressure on the existing bridge are needed, it is impossible to develop alternatives to address the purpose of improving connection between Juneau and Douglas Island. The public, stakeholders and consulted entities should be given an opportunity to engage with that data and help develop the needs statement.

Questions

1) **What is the role of the PEL study in fulfilling NEPA obligations?**
2) **What part of this PEL study replaces or substitutes for components of scoping?**
3) **Will there be a full EIS, or does this PEL study prevent the need for an EIS?**
4) **What data (traffic analyses) exist to support the concept that there is a "need" for decreasing traffic pressure on the existing bridge?**

Refuge Integrity

It is essential that the integrity of the Mendenhall Wetlands State Game Refuge be thoroughly considered and that impacts to the Refuge be fully disclosed to the public. The screening criteria, as currently drafted, only captures discrete, direct impacts to the natural resources (e.g., "wetlands directly affected: acreage impacted by construction").

Preconditions for construction within the Refuge

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. In accordance with this statute, the screening criteria must note that construction within the Refuge boundaries should be considered only after significant need has been established, and all other options are exhausted.

The Refuge is greater than the sum of its parts, in the following ways:

1) Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge.
2) A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.
    - For example, a second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Such a prohibition would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
    - Additionally, the location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, birding, fishing, and cultural activities.
3) The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's continued functionality as a wetland.
    - SEALT is especially concerned with crossing alignments adjacent to our conservation properties. As previously discussed, many of these properties are mitigation sites, providing compensatory mitigation through the USACE's In-Lieu Fee Program. Most of them were identified in the 2008 Juneau International Airport Large Project Mitigation Plan as selected in-kind mitigation sites, and were conserved for the purpose of offsetting the impacts of the airport's expansion. A crossing through the Refuge could be designed to avoid construction on these specific conservation properties. However, if the hydrodynamics are not thoroughly understood and accounted for, these mitigation sites could be isolated from their sustaining freshwater and tidal inputs, resulting in their transition from wetland to upland. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the aforementioned 2008 mitigation plan and the mitigation plans for SEALT's mitigation sites.
    - Likewise, a second crossing's impacts to the hydrodynamic connectivity of the entire Refuge and Mendenhall Wetlands complex must be thoroughly accounted for in order to prevent the drying-out of this globally significant estuarine resource.
4) The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. The integrity of this viewshed should be considered in addition to its rare, unique, and irreplaceable environmental values.

5) Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Questions

1) **How will the integrity of the Refuge be considered by the screening criteria?**
2) **How will the hydrodynamics of the Mendenhall Wetlands complex and Gastineau Channel be analyzed in relation to each potential crossing location?**
3) **How is the PEL study accounting for the fact that AS 16.20.034(i) only allows for establishment of a transportation corridor within the Refuge if the need cannot be met off-refuge?**
4) **Will the Refuge boundary be added to all future maps showing the proposed alternatives?**

Conclusion

SEALT is sharing these comments and questions for the PEL Study Team with the Technical Advisory Committee. We request the responses and answers be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023.

From:	Morgan McCammon
To:	Margo Waring
Cc:	PUB-JDNorthCrossing
Subject:	RE: [EXT] Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee
Date:	Wednesday, January 11, 2023 12:12:55 PM

Good afternoon Ms. Waring,

Thank you for being involved in this study and sharing your concerns and comments.

The language you identified “corridor to connect Juneau with the north end of Douglas Island” is indicated in the PEL Study Description and is not included in the Purpose and Need Statement. We will consider a clarifying revision to that statement to indicate that the PEL study is studying a possible transportation corridor to connect Juneau with Douglas Island north of the existing bridge.

Development of the purpose and need statement is one of the first steps of the PEL process. This is an iterative process where the study team has taken input from the public and agencies, as well as met the guidelines of the Federal Highway Administration. We did not come into this process with preconceived notions of what the purpose and need would say. The purpose and need statement has now been completed and approved by the Alaska Statewide Environmental Office, and it does not include economic development. The statement, “Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.” is listed as an Additional Goal for the study.

Please see the approved purpose and need statement as posted on the study website documents tab: https://www.jdnorthcrossing.com//documents.html.

Please feel free to reach out if you have any additional concerns or comments to share with the study team.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Margo Waring [redacted]
Sent: Monday, January 9, 2023 1:14 PM
To: Morgan McCammon [redacted]>
Cc: [redacted]

[redacted] Cathy Schlingheyde [redacted]; Daniel King <[redacted]>; Matt Robus [redacted]>; Dave Hanna [redacted]; Katie Koester <[redacted] Heidemann, Marie E (DOT) [redacted]v>; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]; Kolwaite, Douglas S (DOT) [redacted]>; christina.mounce [redacted]>; irene.gallion [redacted]>; Alec Venechuk <[redacted]>; Steven Noble <[redacted]; Nina Keller Horne [redacted]>; Renee Whitesell <[redacted]>; Barb Mecum [redacted]; Merry Ellefson Wayne Carnes <[redacted]; Michael Stanley [redacted]; fernleafgt [redacted]>; [redacted]; Ben Hohenstatt [redacted]>; Rep. Andi Story <[redacted]

Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Thank you for sending along these materials. My comments are below.

The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island.

This is "purpose creep" and a focus created by the PEL Study Team that is unfair to both the original intent and to public process. It is not the job of the PEL Study Team to re-write the study's purpose to skew favor toward one or more alternatives, perhaps expecting that we will not notice as our eyes slide over the bureaucratic language.

The study has all along used the purpose language of : "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What makes for affordable housing? Experts know that affordable housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable population and where existing services and infrastructure exist.

That leaves as a purpose "economic development", the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.

On Jan 9, 2023, at 10:05 AM, Morgan McCammon [redacted]> wrote:

From: Dave Hanna
To: Margo Waring
Cc: Morgan McCammon; [redacted]; kbitslarson; Edward Schoenfeld; Spencer, Kari; [redacted] Cathy Schlingheyde; [redacted] Daniel King; Matt Robus; Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; irene.gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell; Barb Mecum; Merry Ellefson Wayne Carnes; fernleafgt; [redacted] Ben Hohenstatt; Rep. Andi Story
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Stakeholder Advisory Committee
Date: Wednesday, January 11, 2023 10:23:46 AM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Greetings all,
In regards to Ms. Warings' comments on mission creep, I believe she is splitting hairs here as well as misconstruing the intent. If the language didn't say the north end of Douglas island it could move the crossing south of the current bridge. Looking at a map shows that anything north of the bridge is on the north end of the island. And as far as " affordable housing" location criteria, public utilities are actually available all the way out to Bayview Subdivision, and no matter where subdivisions are built, clearing and filling are necessary. Indeed one of the largest expenses is filling, and the far north end of the island has rock resources on the actual subdivision sites which drastically reduces the cost of development. I commend the work of the team so far in recognizing all the aspects to consider in this study.
Respectfully,
Dave Hanna

On Mon, Jan 9, 2023 at 1:14 PM Margo Waring [redacted]> wrote:

> Thank you for sending along these materials. My comments are below.
>
> The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island.
>
> This is "purpose creep" and a focus created by the PEL Study Team that is unfair to both the original intent and to public process. It is not the job of the PEL Study Team to re-write the study's purpose to skew favor toward one or more alternatives, perhaps expecting that we will not notice as our eyes slide over the bureaucratic language.
>
> The study has all along used the purpose language of : "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What makes for affordable housing? Experts know that affordable

housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable population and where existing services and infrastructure exist.

That leaves as a purpose "economic development", the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.

On Jan 9, 2023, at 10:05 AM, Morgan McCammon <[redacted]com> wrote:

draft Recommended Alternative Selection Criteria Memo

From: Linda Shaw - NOAA Federal
To: Morgan McCammon
Cc: Churchwell, Roy T (DFG); Daugherty, Leslie K (DOT); Alimi, Adeyemi S (DEC); Kanouse, Kate M (DFG); Meitl, Sarah J (DNR); [redacted]; Patty Wahto (DOT-sponsored); david.gann; [redacted]; Rypkema, James (DEC); [redacted]; Cody Hargreaves; [redacted] Teske, Daniel J (DFG); Purves, Nathan A (DOT); Bjornlie, Nichole L; Markegard, Sarah J; [redacted]; Kroes, Preston M (DNR); [redacted]; [redacted]; Katie Koester; Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); christina.mounce; irene.gallion; Alec Venechuk; Steven Noble; Nina Keller Horne; Renee Whitesell
Subject: Re: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee
Date: Wednesday, January 11, 2023 11:28:03 AM

Hi Morgan,

NOAA FIsheries Habitat Conservation Division would assess alternatives based on those that present the least impact to essential fish habitat (EFH) from wetland, riparian, shoreline or waterbody fill, or that compromise previous compensatory mitigation. The permitting federal agency with a nexus to EFH consultation requirements would need to prepare a detailed EFH assessment based on the specific project proposals for our review.

To provide a broad brush perspective, alternatives that move away from the existing bridge look to have progressively higher impacts. However, this will depend on their specific footprint and nature of impact

Linda

Linda Shaw (she | her)
Wildlife Biologist, Alaska Region
NOAA Fisheries | U.S. Department of Commerce
Office: [redacted]
https://www.fisheries.noaa.gov/region/alaska

On Wed, Jan 11, 2023 at 10:01 AM Morgan McCammon <[redacted]> wrote:

> Hi Roy and Technical Advisory Committee Members,
>
> Based on comments received to date, the Sunny Point Area preliminary alternative has been modified to include a secondary possible entrance on the mainland side. To be clear, we are inviting you to share your thoughts on all the preliminary alternatives and the screening process including the screening criteria by February 3, 2023.
>
> Best regards,
>
> **Morgan McCammon**
> Public Involvement Specialist

DOWL

[redacted]

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From: Churchwell, Roy T (DFG) <[redacted]>
Sent: Wednesday, January 11, 2023 9:36 AM
To: Morgan McCammon <[redacted]>; Daugherty, Leslie K (DOT) [redacted]>; Alimi, Adeyemi S (DEC) [redacted]>; Kanouse, Kate M (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]; Patty Wahto (DOT-sponsored) [redacted]; david.gann <david.gann@noaa.gov>; linda.shaw [redacted].army.mil; Rykpema, James (DEC) [redacted]cg.mil; [redacted] Cody Hargreaves [redacted]>; [redacted] Teske, Daniel J (DFG) <[redacted]>; Purves, Nathan A (DOT) [redacted]>; Bjornlie, Nichole L <[redacted]>; Markegard, Sarah I <[redacted]; Kroes, Preston M (DNR) [redacted]; [redacted]; Katie Koester [redacted]>
Cc: Heidemann, Marie E (DOT) <[redacted]>; Gentemann, Christy D (DOT) [redacted]; Lockwood, Gregory K (DOT) [redacted]; Kolwaite, Douglas S (DOT) [redacted]>; christina.mounce <[redacted]; irene.gallion [redacted]>; Alec Venechuk [redacted]>; Steven Noble [redacted] Nina Keller Horne <[redacted]>; Renee Whitesell [redacted]>
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello Morgan,

I think the issue is (at least for me) that the map you have provided has all of the alternative routes on it, but you have asked us for additional comments on an added route. Unfortunately, I am not sure which one that is. Can you provide a map with that one route delineated?

Roy

From: Morgan McCammon [redacted]
Sent: Wednesday, January 11, 2023 9:28 AM
To: Daugherty, Leslie K (DOT) <[redacted]; Alimi, Adeyemi S (DEC) [redacted]; Kanouse, Kate M (DFG) <[redacted]>; Churchwell, Roy T (DFG) <[redacted]; Meitl, Sarah J (DNR) [redacted] Patty Wahto (DOT-sponsored) [redacted]; david.gann <[redacted]; linda.shaw [redacted]; Rypkema, James (DEC) [redacted]; Cody Hargreaves [redacted]; Teske, Daniel J (DFG) <[redacted]>; Purves, Nathan A (DOT) [redacted]>; Bjornlie, Nichole L <[redacted]; Markegard, Sarah I <[redacted]; Kroes, Preston M (DNR) [redacted] Katie Koester [redacted]
Cc: Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) <[redacted]; Lockwood, Gregory K (DOT) [redacted] Kolwaite, Douglas S (DOT) [redacted]>; Mounce, Christina L A (DOT) [redacted]>; irene.gallion [redacted]; Alec Venechuk [redacted]; snoble <[redacted]; Nina Keller Horne [redacted]>; Renee Whitesell [redacted]>
Subject: RE: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

It has come to our attention that some committee members are having difficulty locating the modified preliminary alternatives through the link. Please see the attached map. Again, please let me know if you would like to schedule a meeting with the study team to discuss any questions or comments about the study or progress.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL
[redacted]
dowl.com

From: Morgan McCammon
Sent: Monday, January 9, 2023 9:57 AM
To: [redacted]
Cody Hargreaves <[redacted]; Katie Koester
Cc: Heidemann, Marie E (DOT) [redacted]
Alec Venechuk [redacted]; Steven Noble [redacted]>; Nina Keller Horne [redacted]; Renee Whitesell [redacted]
Subject: Juneau Douglas North Crossing PEL Study Technical Advisory Committee

Good morning Technical Advisory Committee Members,

Thank you for participating in the Technical Advisory Committee because your input is valuable to the PEL study process. The survey comment period is being extended until **February 3, 2023** because, based on comments received to date, the Sunny Point Area preliminary alternative has been modified to include a secondary entrance on the mainland side. We would like to invite you to share your thoughts on the preliminary alternatives and the screening process presented at the Public Open House and the last advisory committee meeting via the online survey. To view these materials, click here: Juneau Douglas North Crossing, or visit the website at www.jdnorthcrossing.com. We will close

the survey at 5:00 pm on **February 3, 2023**.

Please see the attached draft Recommended Alternative Selection Criteria Memo and summary from the November 17, 2022, Technical Advisory Committee meeting.

Please let me know if you would like to schedule a meeting with the study team to discuss any questions or comments about the study or progress.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL
[redacted]
dowl.com

January 13, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has reviewed the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study (ADOT&PF, *Summary of Previous Studies, Reports and Findings*, May 2022), the Environmental Setting document (December 2022), the potential crossing ideas document, wetlands and waterways document, the Virtual Public House video presentation (May 11, 2022), Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023), meeting summaries, and baseline data available on the project website https://www.jdnorthcrossing.com/. The stated project purpose and need statement (Updated November 2022) of the JDNC PEL study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The PEL study states that the project need should address alternative access and transportation infrastructure resilience and decrease traffic pressure on Douglas Island Bridge and its intersections.

In an effort to participate in early planning and provide regulatory background, EPA is providing preliminary comments related to discharges under the Clean Water Act 404(b)(1) Guidelines (Guidelines). EPA is submitting these comments in response to the Alaska Department of Transportation and Public Facilities (ADOT&PF) JDNC project PEL study and associated materials, including project alternatives.

ALTERNATIVES ANALYSIS

According to the video presentation (May 11, 2022) the study team has not identified any route within the study area as the preferred alternative and seeks to work with the Technical Advisory Committee (TAC) to find the best solution. The video presentation states that in winter/spring 2023 detailed alternative screening results and recommended alternatives will be brought forward for future development and that comments will be accepted throughout the process. Fifteen preliminary Alternatives are described within the PEL study. On January 11, 2023 a map was provided to the TAC that depicts the further extension of the Bench Road to connect with the Mendenhall Peninsula alternative. The Alternatives Development Workshop document (July 19, 2022) includes Alternative Screening Criteria as Level 1 (Baseline Purpose and Need Criteria and Level 2 (Qualitative Criteria). An alternative must score positive in all criteria under Level 1 to advance to the Level 2. Level 2 criteria include impacts to waters of the U.S. including wetlands.

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. The Guidelines at 40 CFR § 230 are the substantive environmental criteria for the evaluation of proposed discharges of dredged or fill material into Waters of the United States (WOTUS), including wetlands. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines at 40 CFR § 230.10 identify several specific restrictions on discharges. The first of these, at 40 CFR § 230.10(a), specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[1] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[2]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Once the LEDPA has been identified, that is the version of the project which is evaluated against the other restrictions on discharge found in subsections § 230.10(b), (c), and (d).

The JDNC project proposes to construct a second crossing near Juneau to connect with Douglas Island. The proposed project will require fill in the intertidal areas including estuarine and marine deepwater WOTUS. Any alternative that requires the "Bench Road" would result in additional wetland fill on the Douglas Island side. It is not clear at this stage of the Project which of the alternatives may represent the least environmentally damaging practicable alternative (LEDPA) to achieve the project purpose, however all appropriate and practicable steps must be taken to avoid, minimize, and compensate for remaining impacts to aquatic resources, consistent with 40 CFR § 230.10(a) and (d) of the Guidelines. As noted in the Recommended Alternative Selection Criteria Technical Memorandum (January 6, 2023) ADOT&PF is required to evaluate and identify the LEPDA to avoid and minimize impacts of WOTUS to the maximum extent practicable. Because the Project has presented more than fifteen crossing alternatives, EPA finds it especially prudent at this time to provide information on the requirements under the Guidelines to help identify the LEDPA alternative. EPA is pleased to see the Project's baseline National Wetlands Inventory and City and Borough of Juneau (Figure 2 data) wetlands mapping efforts as part of the baseline for use towards this evaluation.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at [redacted], or you may contact Betsy McCracken at [redacted]

Sincerely,

Amy Jensen,
Regional Wetland Coordinator
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[1] 40 CFR § 230.10(a)(2)
[2] 40 C.F.R. § 230. 10(a)(3).

Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department of Natural Resources (Office of Habitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off-Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending on the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment…" and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden – Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden (*Salvelinus malma*) in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery – Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance – On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus*, in Southeaster Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R. H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R. H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn—access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (O. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and K V. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL;
http://www.ecologyandsociety.org/vol14/ iss1/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Shortbilled Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose (*Branta canadensis fulva*), which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards**. They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle**--In 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird—too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.

Hodges, J. I., and B. Conant 1986. Experimental Vancouver Canada Goose Survey – Northern Portion of Southeast Alaska. Waterfowl Investigations, U.S. Fish and Wildlife Service, Juneau, Alaska. 9 pp.

King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

Watson, S. 1979. Avian habitats and use of the Mendenhall Wetlands Wildlife Refuge, 30 April-30 June 1979. ADF&G unpublished report, Juneau, AK 28 pp.

Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles (*Microtus longicaudus*) are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF HABITAT MANAGEMENT AND PERMITTING
JUNEAU AREA OFFICE

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22 December, 2003

Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Lukshin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview

The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review of DNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion (*366-045-84* and *366-122-84*, 11/8/85), addresses in detail the land management authorities of DNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals (*Refuge Mgmt Plan 5 AAC 95.520*): "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--
*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700—760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not taking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.10) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. "

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations
Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria
Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment
Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information
We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle
Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
Robin Willis, ADF&G, Anchorage
Wayne Dolezal, ADF&G, Anchorage
Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
PRELIMINARY ALTERNATIVES AND SCREENING CRITERIA

JANUARY 31, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the preliminary alternatives for a second crossing between the mainland and Douglas Island, and the technical memorandum outlining screening criteria, and has the following comments:

1. Our committee commends the study team for including mention of a bench road as a concept that should be evaluated. *See* Summary of the Stakeholder Advisory Committee Meeting 2 (November 17, 2022). We understand that a bench road is not directly part of the PEL study of crossing alternatives but would be a separate, standalone project. The study team recognizes, however, that concerns regarding traffic on the North Douglas Highway, particularly regarding safety and capacity, are significant. We therefore recommend that the selection criteria be revised to include the potential for connection to a bench road as a factor that should be considered in evaluating the crossing alternatives.

This does not equate to endorsement of a bench road. Our prior survey of North Douglas homeowners (the results of which we previously provided to the study team) indicated a split of opinion on support for a bench road, 60 % in favor and 30 % opposed. But we do believe such a road – which would function similar to the Auke Rec/Lena bypass highway – should be reflected in the analysis.

We further understand that DOWL is in the process of completing a traffic study for the North Douglas Highway, and look forward to seeing the results of that work. Our committee continues to believe that a second crossing of Gastineau Channel, along with attendant development on North Douglas, will lead to a substantial increase in traffic along the highway, which is a major concern for NDNA.

2. As the committee has previously expressed to the study team, NDNA has for 20 plus years been requesting the CBJ to undertake an area planning process for North Douglas, much like it has done for other areas in Juneau. This is not something within the scope of the PEL study or for which DOWL has any responsibility; rather, it is a process within the authority of the CBJ and its planning department. Our committee has renewed discussions about an area planning process for North Douglas with Assembly members and CBJ planning staff, but have been advised that their next order of business is to review and revise the overall CBJ comprehensive plan before committing to another area-specific plan. Obviously, that process, if it were to occur, would take place after identification of a preferred crossing alternative through

the PEL study. This sequence is unfortunate, in our view, because a North Douglas Area Plan might well inform decision-making related to a crossing, including whether a second crossing is even needed.

For instance, the purpose and need statement lists as an additional goal of a second crossing "creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What if an area-specific planning process for North Douglas leads to a conclusion that this goal is not realistic? That any housing developed on the west side of Douglas Island is unlikely to be "affordable," or that there is little commercial interest in establishing a port in the vicinity of Hilda Creek. Wouldn't it be better to know that before a crossing alternative is selected?

3. In reviewing the descriptions of the various alternatives, we noted a difference in wording that could impact how the alternatives will be analyzed. All but two of the descriptions of the alternatives includes some recognition of effects on North Douglas homeowners in the immediate vicinity of the crossing location. For example, for the Mendenhall Penninsula location it says that impacts to existing residential homeowners will be a key consideration. For the North Airport location, it says there would be exploration of alignment alternatives that reduce impact to residential properties in Douglas Island. And for Vanderbilt, Twin Lakes, Salmon Creek and Eagle Creek there is mention of the need for right-of-way acquisition.

The description of the Sunny Point and Twin lakes alternatives is different, however. For Sunny Point, it says that there is an opportunity to connect to North Douglas Highway on property owned by CBJ. And for Twin Lakes it says that there is space to connect to North Douglas Highway. Thus for these two alternatives, there is no mention of either a need to consider an alignment that reduces impact to residential properties or a need for right of way acquisition. Our committee recommends that the descriptions of the various alternatives should reference the same list of criteria that will be used for analysis.

4. Prior studies of a second crossing (*e.g.,* the Project Development Summary Report (HDR Alaska, Inc., May 2005, and North Douglas Crossing Public Involvement Project (Sheinberg, April 2007)) evaluated the various crossing alternatives in part based on the nature of the crossing – embankment with a fixed span or structure-supported roadway. In other words, a filled causeway with a bridge over the main channel versus a crossing built on pilings. The differences between the two are significant in terms of environmental impacts and cost. The screeing criteria do not appear to account for this difference, and application of those criteria could yield very different conclusions depending on how a crossing was constructed. We encourage the study team to provide more clarity on this point.

NDNA appreciates the opportunity to comment on the preliminary alternative and selection criteria, and looks forward to continuing to work with DOWL and DOTPF in the PEL study process.

From: Ronald
To: Morgan McCammon
Subject: [EXT] 2nd crossing
Date: Wednesday, February 1, 2023 3:05:18 PM
Attachments: MWSG submittal North Crossing PEL-reduced Final.pdf

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WARNING: *External Sender - use caution when clicking links and opening attachments.*

Morgan, the Juneau Shooting Sports Foundation has voted to support the document submitted by the Mendenhall Wetlands Study Group. I have attached another copy for your records if needed. If our tabulating votes, the Foundation has 9 members.

Thanks

Ron Somerville

From: Ryan Beason
To: Morgan McCammon
Subject: [EXT] 2nd Crossing Comments
Date: Wednesday, February 1, 2023 4:35:23 PM
Attachments: MWSG submittal North Crossing PEL-final.pdf

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Territorial Sportsmen Inc. supports the Mendenhall Wetland Study Group comments which have been previously submitted. Thank you for your time.

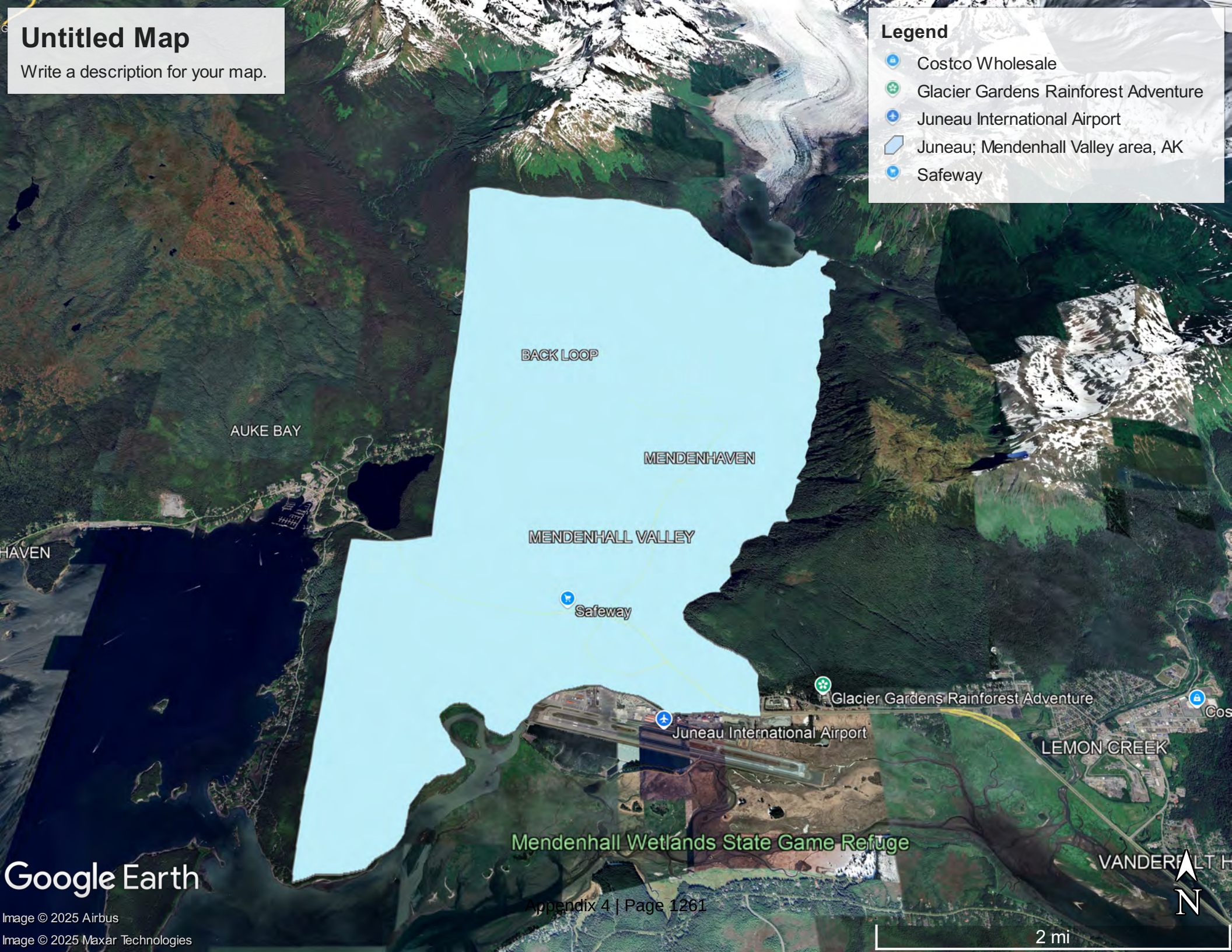
-Ryan Beason, President
Territorial Sportsmen President

From: Mendivil, Gary A (DEC)
To: PUB-JDNorthCrossing
Subject: [EXT] Alaska Department of Environmental Conservation Comments - Juneau Second Crossing
Date: Friday, February 3, 2023 4:02:49 PM
Attachments: PM10_boundaries.kmz

Some people who received this message don't often get email from gary.mendivil@alaska.gov. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

From an air quality perspective, alternatives 1 and 2 fall within the Mendenhall Valley PM10 Maintenance area (see the attached PM10 boundary kmz file). Hence, if you decide to go with any of these two alternatives, you would need to meet the transportation conformity requirements per the Clean Air Act. However, to make an informed decision on the need for conformity analysis when the preferred alternative is chosen, the department would need set up an interagency conformity meeting. Only the members of the interagency committee, including the EPA, DEC, DOT&PF, FHWA, and FTA, can provide guidance on the conformity determination.


Untitled Map
Write a description for your map.
Legend
Costco Wholesale
Glacier Gardens Rainforest Adventure
Juneau International Airport
Juneau; Mendenhall Valley area, AK
Safeway
BACK LOOP
AUKE BAY
MENDENHAVEN
MENDENHALL VALLEY
HAVEN
Safeway
Glacier Gardens Rainforest Adventure
Juneau International Airport
LEMON CREEK
Mendenhall Wetlands State Game Refuge
VANDERBILT H
Google Earth
Image © 2025 Airbus
Image © 2025 Maxar Technologies
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MEMORANDUM

State of Alaska

Department of Fish and Game
HABITAT SECTION

TO: Marie Heidemann
Transportation Planner
DOT&PF

DATE: February 3, 2023

FILE: Gastineau Channel Bridge: DOT Second Crossing

SUBJECT: Juneau Douglas Second Crossing
PEL #SFHWY00299

FROM: Jesse Lindgren JL
Habitat Biologist

PHONE NO: (907) 465-1635

Alaska Department of Fish and Game (ADF&G) biologists have reviewed the Alaska Department of Transportation and Public Facilities (DOT&PF) preliminary alternatives and screening as part of the Juneau Douglas second crossing PEL study (State Project #SFHWY00299); Division of Wildlife Conservation Juneau Area Management Biologist Roy Churchwell and I are members of the technical advisory committee.

The Mendenhall Wetlands State Game Refuge (Refuge) management plan includes goals for wildlife, fish, and public use and existing policies to guide decisions on management activities. One of the policies is for a transportation corridor, "The City and Borough of Juneau may acquire land for a public transportation corridor, including a water corridor, only after the following have been demonstrated: 1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of the refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated, no-fill corridor options where feasible; 3) that public access to the refuge is maintained; and 4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation. It is not the intent of this policy to prevent the maintenance of the Gastineau navigational channel." A Special Area Permit from Habitat Section would be required for Juneau Douglas second crossing activities located on the Refuge.

The Refuge is designated as a globally recognized Important Bird Area. In general, the area around the Mendenhall River mouth and along Twin Lakes are hotspots for birds using the Refuge. As for number of species of birds, the Mendenhall River and near the airport as well as Sunny Point have the highest number of species. Bird species can be specific in the habitats they use, other areas of the Refuge may be important to specific species; please consult with Mr. Churchwell for more details on important wildlife areas.

The Refuge includes over 28 streams providing habitat for Chinook, chum, coho, sockeye, and pink salmon, Dolly Varden, and cutthroat and steelhead trout. An ArcGIS shapefile of the steams in the project area can be obtained by contacting me. The Refuge provides rearing habitat and a migration corridor for salmonoids. Fish Habitat Permits from Habitat Section would be required for Juneau Douglas second crossing activities involving anadromous and resident fish steams.

The Refuge supports recreational use through 13 access points commonly used for hunting, fishing, gathering, hiking, dog walking, nature watching, and photography to name a few. According to hunter data submitted to ADF&G, waterfowl hunting on the Refuge accounts for over 2,000 hunter days by 350 to 400 permit holders harvesting 3,000 to 4,000 waterfowl annually. Sunny Point is the most popular entrance onto the Refuge with 36% of use, the Airport Dike is the next most popular entrance with 27% of use, other popular hunting entrances include the Mendenhall Peninsula with 16% and the Nine-mile area on Douglas Island with 17% of the use. The Sunny Point area bridge or the North Airport tunnel alternatives could pose challenges to waterfowl hunting by eliminating a high use access point and may restrict hunting on the Refuge.

Fishing is a popular activity on the Refuge and in Gastineau Channel. Many anglers fish around Fish Creek and the Fish Creek Pond with heavy use starting in June through September. Anglers also fish Gastineau Channel from the Refuge shore during low tide and by boat during high tide; this is becoming increasingly popular for fly fishing anglers. Finally, at the very southern end of the Refuge by Salmon Creek, anglers fish near the hatchery July through September. Fritz Cove provides important habitat for Dungeness and red king crab which support valuable personal use fisheries. Crab pots often line the western portion of the Refuge, and many boats troll in Fritz Cove from June through September; the Mendenhall Peninsula bridge, depending on location, could alter use in Fritz Cove.

Hikers, dog walkers, photographers, and nature viewers use the Refuge with the most popular access points being the Airport Dike trail and Industrial Boulevard trail. While there is not specific user data, hundreds of people use these trails daily and on sunny days, use increases to thousands of people.

The Refuge is also important for subsistence gathering for food and materials for crafts for native peoples and other users. Many elders use the Refuge because of the ease of access and because it is close to town.

These general comments are intended to summarize Refuge uses by wildlife, fish, and the public. There are other animal and human uses that occur on the Refuge that can be addressed when more specific plans or information is available to review. A crossing between the south side of the Mendenhall Peninsula and the south side of Sunny Point may have greater impacts to the Refuge than the other alternatives. The use of pilings versus fill would reduce impacts to important ecological functions in the Refuge.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Matt Catterson, ADF&G SF, Douglas
Scott Forbes, ADF&G CF, Douglas
Andrew Olson, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Christy Gentemann, DOT&PF, Juneau
Nina Keller, DOWL, Juneau
Morgan McCammon, DOWL, Juneau
Steve Noble, DOWL, Anchorage
Ben Soiseth, USACE, Soldotna
Andy Stevens, USFWS, Anchorage
Habitat Conservation Division, NMFS, JNU
Teri Camery, CBJ, Juneau
Sgt. Robert Welch, DPS/AWT, Juneau

Survey Comment – Refuge Manager

Roy Churchwell Alaska Department of Fish and Game roychurchwell@alaska.gov

As the manager of the Mendenhall Wetlands State Game Refuge (Refuge), I am providing these comments through the technical committee and the comment portal. From a waterfowl hunting perspective, there are 350-400 permit holders annually, who spend over 2,000 hunter days on the Refuge and harvest 3,000-4,000 waterfowl. A bridge through Sunny Point or the Airport EVAR would likely end waterfowl hunting on the Refuge as we know it. Sunny Point is the most popular entrance onto the wetlands with 36% of hunters using this entrance. The EVAR is the next most popular point with 27% of hunters using this location. If either of these were no longer available, the remaining Refuge would not be able to absorb this additional hunting pressure. Other popular hunting entrances include the Mendenhall Peninsula with 16% and the 9-mile area on Douglas Island with 17% of the use. The Refuge is designated as a globally recognized Important Bird Area. Characterizing bird use is difficult, but in general the area around the mouth and up the Mendenhall River along with the area near Twin Lakes are hotspots for the number of birds using the Refuge. As for number of species of birds, locations on the Mendenhall River and near the airport as well as Sunny Point had the highest number of species. Some bird species are specific in the habitats they use, and so there could be other parts of the Refuge that are important to a specific species. Recreational use is very prevalent on the Refuge and includes dog walkers, hikers, photographers, nature watchers, and horse riders to name a few. The EVAR trail is the most used site for this, but the trail at the end of Industrial Avenue is also very important. We don't have numbers of users from these sites, but I am certain that hundreds of people use these trails daily, and on a nice sunny day there are thousands of people that use these two trails. Fishing is becoming more and more popular on the Refuge. Many anglers fish around Fish Creek and the Fish Creek Pond with heavy use starting in July through September. Other anglers are using the Gastineau Channel at low tide through the Refuge, and this is becoming more and more popular for anglers fly fishing. This mostly occurs from Sunny Point through to 9-mile. Finally, at the very southern end of the Refuge, anglers fish near the hatchery July through September. There are other uses that the Refuge is important for including subsistence gathering for food and crafts for native groups and other subsistence users. Many elders use the Refuge because of the ease of access and because it is close to town. There are many other human and animal uses that I have not listed above, some of which are probably just as important if not more so. However, these are the things that come to mind as I think about what could be impacted on the refuge by a second crossing. A crossing off of the south side of the Mendenhall Peninsula through to the far south side of Sunny Point would greatly impact the Refuge on many levels. A crossing from the point of the Mendenhall Peninsula or from Vanderbuilt Road and areas south will have less and less of an impact the further one gets from the Refuge. The use of pilings versus fill when creating a road across the Refuge would have less of an impact on the ecological function of the Refuge. However, a road on pilings would still have very significant impacts through the main portion of the Refuge. These comments are general at this point, but I can provide more specific information and comments once that information is provided.

From:	Vigil, Randal P CIV USARMY CEPOA (USA)
To:	PUB-JDNorthCrossing; Heidemann, Marie E (DOT)
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Subject:	[EXT] Juneau Douglas Crossing PEL
Date:	Friday, February 3, 2023 1:54:36 PM
Attachments:	image001.png

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Ms. Marie Heidemann,

The U. S. Army Corps of Engineers (USACE) has reviewed the proposed Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study. This email provides the USACE comments on the PEL study.

Project Purpose: The definition of overall project purpose is used in the determination of practicable alternatives since the Environmental Protection Agency's 404(b)(1) Guidelines (Guidelines) define practicable to mean: "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes (40 CFR 230.10(a)(2))." While the definition of overall project purpose is solely the USACE's responsibility, it must take into consideration the applicant's stated purpose for the project (July 2009, Army Corps of Engineers Standard Operating Procedures for the Regulatory Program.).

If a permit applicant has limited their purpose in such a way that the alternatives analysis would be constrained, then the USACE will re-define the overall project purpose in order to allow for consideration of an appropriate range of alternatives. The PEL and any future NEAP document purpose statement should allow for the generation of a range of alternatives for a meaningful analysis under the Guidelines.

Alternative Analysis: Clean Water Act (CWA), Section 404 permits are only issued for projects that clearly demonstrate compliance with the Guidelines. The Guidelines state that no discharge of dredged or fill material can be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In those cases where non-water dependent work is proposed in a "special aquatic site" (such as wetlands, eelgrass beds, or mudflats), practicable alternatives are presumed to exist unless clearly demonstrated otherwise by the applicant. Also, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into to a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated

otherwise.

An alternative is considered practicable if it is available and capable of being accomplished after taking into consideration costs, existing technology, and logistics in light of the overall project purpose. The least environmentally damaging practicable alternative may include construction in upland, reducing the size of the proposal to the minimum discharge necessary for the project, or the inclusion of logistic and operational controls.

The PEL and any future NEAP document should clearly outline the site selection/screening criteria for the practicability for the alternatives considered. Examples may include: criteria related to availability (i.e. available for acquisition, zoned appropriately or potential for re-zoning); cost (i.e. reasonable acquisition or development costs); technology (i.e. whether existing technology is available to address any site constraints like steep topography); and logistics (i.e. location of parcel within certain distance of particular facilities/city boundaries/highway and/or utility infrastructure; adequacy of parcel size; availability of utilities; availability for access, etc.). Consider establishing criteria that are minimum/maximum or pass/fail (e.g., at least 15 acre size (minimum size); ability to connect to utilities (sewer, electricity) (pass/fail).

Evaluation for compliance with the Section 404(b)(1) Guidelines: Under the 404(b)(1) Guidelines, no discharge can be permitted if there is a practicable alternative with less adverse impact on the aquatic environment, unless the alternative has other significant adverse effects on the natural environment (40 CFR § 230.1 0(a)).

In addition, no discharge can be permitted under the Guidelines if it would, individually or cumulatively, cause or contribute to significant degradation of waters of the United States (U.S.), or violate other applicable laws, such as State water quality standards, toxic effluent standards, or the Endangered Species Act. The Guidelines also state that no discharge in wetlands shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.

In determining whether the proposal complies with Guidelines, the USACE must assess potential impacts on the aquatic ecosystem, including substrate, suspended particulates/turbidity, water, current patterns and water circulation, and normal water fluctuations. Information regarding these factors should be included to evaluate these impacts.

Potential impacts to wetlands should be included in the analysis. In order to assess impacts to wetlands, a range of design for a proposed second crossing near Juneau to connect with Douglas Island, any alternative that requires the “Bench Road”, transportation improvements for non-motorized users and transportation related energy consumption reduction, and transportation improvements for infrastructure resilience and reduction in traffic pressure on Douglas Island Bridge and its intersections.

Potential impacts on the human use characteristics (subpart F 40 CFR 230.50) should be addressed including recreational and commercial fisheries, water-related recreation, aesthetics, including wildlife refuges.

In order to evaluate possible contaminates in dredge and fill materials, a pre-testing evaluation should be conducted to determine if there are sources of contamination and harmful quantities to the aquatic environment by man-induced discharge activities (subpart G, 40 CFR 230.60). An example specific to this project are naturally occurring deposits of acid generating rock and arsenic within the proposed project area, however the other potential sources of contaminates should be examined as well.

The PEL and any future NEPA document should include analysis of effects to populations of fish and wildlife, alteration of substrate, water levels, water flow, water quality, migration corridors, food supply, a change in breeding and nesting areas, and animal travel corridors associated with aquatic ecosystems.

Under the USACE's substantive evaluation criteria for all CWA, Section 404 permits, the Guidelines, mitigation is a sequential process of avoidance, minimization, and compensation. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. Only upon clear demonstration of compliance with the first two steps in the mitigation sequence does the Corps take the third step, which would be addressed during the review of a DA permit application for the proposed undertaking, should one be submitted.

Avoidance measures are the planning strategies that entirely eliminate the discharge of fill material into the aquatic ecosystem to achieve the project purpose. A key requirement of compliance with the avoidance sequence of the Guidelines is to show whether or not an aquatic resource can be completely avoided. Minimization entails measures to reduce or diminish the impacts to aquatic resources.

There are two overarching themes that affect how the mitigation sequencing is conducted. One is that although the burden of proof for satisfying these steps rests with the permit applicant, the USACE must rely upon its own analysis in making a finding of compliance or non-compliance with the Guidelines. The applicant must provide information that is sufficient to determine compliance, so the USACE can make a timely permit decision. In order to determine if project component locations can be shifted to avoid or minimize impacts, a functional or aquatic site assessment is required.

Because this proposal would appear to result in the loss of waters of the U.S., including wetlands, future documentation should include a mitigation section that contains a discussion describing how impacts to waters of the U.S. are to be avoided and minimized. This information must be specific to the proposed work and sufficient for the Corps' Guidelines analysis.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest (33 CFR 320.4). To the extent appropriate , the public interest review would include consideration of policies as described in 33 CFR 320.4(b) through (r), which include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain value, land use, navigation, shoreline erosion and accretion,

recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, needs and welfare of the people.

Evaluation of the probable impact that the proposed activity may have on the public interest requires a careful weighing of all the factors that are relevant to the project. The benefits that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.

The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process of these factors.

The USACE appreciates the opportunity to comment. Please contact Randal Vigil via email at [redacted] by mail at the address above, or by phone at [redacted] if you have questions.

Sincerely,

Randal P. Vigil
Project Manager
Regulatory Division

US Army Corps of Engineers®

[redacted]

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
Anchorage Fish and Wildlife Conservation Office
4700 BLM Road
Anchorage, Alaska 99507

In Reply Refer to:
FWS/R7/SAFWFO, AFWCO

Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Screening Process and Preliminary Alternatives (Service File Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the screening process and preliminary alternatives developed for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. Preliminary alternatives were developed jointly by the project team and members of the Technical and Stakeholder Advisory Committees in July 2022. These alternatives underwent a pre-screening process, during which some were advanced, some were combined, and some were eliminated altogether. Two additional screening processes will occur during the PEL Study. The Level 1 screening will be completed with minimal additional data collection; alternatives that fail to meet the purpose and need, as well as a range of qualitative evaluation criteria will be removed from further consideration under this screening process. The Level 2 screening will evaluate the detailed alternatives using a broad range of criteria and will consider the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent

species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Screening Process

- The Service appreciates the opportunity to provide comments during the Level 1 screening process; however, our staff were unable to attend previous in-person-only meetings in Juneau. We therefore request that future Technical Advisory Committee meetings be offered virtually to ensure greater participation by technical experts.
- We also recommend consultation with the Douglas Indian Association and the Central Council of Tlingit and Haida Indian Tribes of Alaska throughout the screening process.
- It was noted that a "No-build Alternative" is being considered, but it was not included as a Preliminary Alternative in the screening process. We feel it is important that this alternative be discussed alongside all other potential alternatives and that the Advisory Committees have the opportunity to provide comments on this alternative as well.
- What are the next steps for Level 1 and Level 2 screening? How and when will the results of the screening process be communicated with the Technical and Stakeholder Advisory Committees?
- Will there be an opportunity during the PEL Study for Advisory Committees to review in more detail the anticipated project activities and resulting impacts to wildlife and their habitats under each alternative? This information would provide important context for determining the need for permits and authorizations under each alternative.
- The Service would appreciate additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

<u>General Comments</u>

- We recommend that all relevant resource agencies, organizations, and Tribes be contacted directly to ensure that baseline environmental data being evaluated within the study area is up-to-date and comprehensive. This includes but is not limited to: wetland and vegetation classifications, plant and animal species occurrence data (especially invasive species, sensitive or rare species, subsistence species, and protected species), and wildlife habitat types (e.g., upland habitat, Essential Fish Habitat, anadromous streams).
- It would be helpful to see a map with the Preliminary Alternatives overlayed on the Mendenhall Wetlands State Game Refuge (Refuge). Given the global importance of the Refuge for migratory birds and its already compromised status, being surrounded by major urban development, it will be helpful to be able to visualize the alternatives that will have a direct impact within Refuge boundaries.
- The Southeast Alaska Land Trust (SEALT) owns mitigation sites adjacent to the Refuge and some of the proposed crossings. It will be imperative to work closely with the Alaska Department of Fish and Game (ADFG) and SEALT to understand the direct and

indirect impacts of each of the potential crossings on hydrologic connectivity within the Refuge and the adjacent mitigation sites. This connectivity is essential to its continued function as an estuary and as important bird and fish habitat.

Avoidance and Minimization Measures for Service Trust Species

- We recognize that the Service, Information for Planning and Consultation (IPAC) website indicates that the federally endangered short-tailed albatross (*Phoebastria albatrus*) may use habitats in the study area. However, short-tailed albatrosses are generally associated with shelf break and slope regions of the northwestern Pacific Ocean and the Bering Sea, which do not exist within the study area. Therefore, we do not expect the presence of short-tailed albatross within the vicinity of the potential crossings. If it is determined that there will be no effect on the albatross within your action area, no additional Endangered Species Act consultation with the Service is needed.
- Although northern sea otters (*Enhydra lutris kenyoni*) are not commonly observed within the area of the potential crossings, if it is determined that there may be impacts to northern sea otters from project activities, we recommend you reach out to our Marine Mammals Management (MMM) Regulatory Program Lead, Sierra Franks, at sierra_franks@fws.gov, for further coordination.
- The study area, and especially the Refuge, supports a diverse assemblage of bird species. The Mendenhall Wetlands complex has the third greatest acreage of vegetated tidal salt marsh of all estuaries in Southeast Alaska, and it is a key migratory waterfowl and shorebird stopover location in coastal Alaska. The network of brackish sloughs and ponds contained within the complex are used significantly by waterbirds, songbirds, and raptors for resting and foraging (Audubon 2023, website). This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including marbled murrelets (*Brachyramphus marmoratus*), olive-sided flycatchers (*Contopus cooperi*), rufous hummingbirds (*Selasphorus rufus*), black oystercatchers (*Haematopus bachmani*), marbled godwits (*Limosa fedoa*), and rock sandpipers (*Calidris ptilocnemis*). We recommend that screening of all preliminary alternatives prioritizes these environmental conditions and species of concern, and that crossing locations within these important areas be avoided if possible. Any potential impacts to birds or their habitats would be subject to evaluation under the Migratory Bird Treaty Act.
- Bald and golden eagles also occur within the study area and may be impacted by the proposed crossings. Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the selection of the final alternative (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these

surveys, together with guidance from the Service, will help determine which crossings may be detrimental to eagles, appropriate avoidance and minimization measures that may be recommended, and whether a permit may be needed.

- The rivers and streams occurring within the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur.
- Although amphibians and mammals in the study area are not explicitly protected by the Service under Federal law, these taxa are considered trust resources under the Fish and Wildlife Coordination Act, which directs the Service to evaluate impacts to fish and wildlife from proposed water resource development projects and to provide recommended measures to mitigate such impacts. Therefore, we recommend that the most up-to-date information on amphibian and mammal populations and habitat be compiled and included in future screening efforts, and that alternatives selected for consideration have the lowest possible impact on these wildlife communities.

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at [redacted] and reference Service File Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

Literature Cited

Audubon. 2022. Important Bird Areas: Mendenhall Wetlands, Alaska website. Accessed January 31, 2023. https://www.audubon.org/important-bird-areas/mendenhall-wetlands

From: Matt Robus
To: PUB-JDNorthCrossing
Subject: [EXT] Comments on the North Crossing PEL Study
Date: Friday, February 3, 2023 3:18:28 PM

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Comments re North Crossing PEL Study

First of all, I should state that I do not oppose the idea of a "second crossing," although I am not sure that one is necessary, compared to other needs in Juneau. Arguably, the planning and design of a "Douglas Island bench road," which would prepare the corridor along the east and north shores of the island for increased traffic and protect the local neighborhoods along North Douglas Highway from high speed through traffic, should *precede* planning for a crossing.

My comments about the PEL study are about both the process to date as well as the choices to be made:

Process

To give an idea of my involvement, I have participated in a North Crossing PEL listening session, public stakeholder meetings, an open house, and a special meeting between staff and the Mendenhall Wetland Study Group. At my first exposure I was dismayed that the Mendenhall Wetlands State Game Refuge (MWSGR) was not depicted on the maps defining the study area and have been disappointed ever since that those boundaries have not been added. For a process with "Environmental Linkages" embedded in its title this has seemed curious to say the least. By definition the MWSGR contains not only significantly valuable natural resources but also presents extra regulatory hurdles for any development; it was a mistake to encourage the public to nominate crossing routes without showing them a legislatively designated special area that would be affected, and which would in turn affect the authorization of a route. From the beginning I have repeatedly questioned the absence of the refuge boundaries on the PEL map handouts and have been politely told by staff that the MWSGR boundaries existed in one of the layers in the map book available at the meetings. Maybe so, but my point is that most people didn't leaf through the map book when making their route decisions, and if they used a map at all, it was the study area handouts, which were silent on the matter of a wildlife refuge. The airport was depicted (I assume) because it obviously affected route choices; the decision not to depict another legislatively designated special purpose area (the MWSGR) within the study area seems arbitrary, and likely led people to favor routes across the refuge in ignorance of its extent and its management paradigm. Did people drawing routes understand that state regulations require that off-refuge alternatives be preferred? Probably not.

If I understand the process correctly, the idea was to collect ideas for crossing routes based entirely on the purpose and need statements, with environmental and other considerations to be used to screen out problematic alternatives. The problem is that the array of route alternatives, gathered without adequate revelation of MWSGR's extent or purpose, will now be screened away from the public eye using environmental and other factors, leading to a reveal sometime later this spring/summer. Given that the MWSGR boundaries were not prominently included in the information which was a basis for forming proposed route alternatives, the planning team has forfeited a certain amount of credibility in the proceedings.

Route Choices

My route recommendations are based upon 30 years as a professional wildlife biologist, 8 years as ADF&G's Juneau Area Biologist, and 4.5 years as Alaska's chief wildlife manager, as well as 31 years as a Juneau resident. The Mendenhall Wetlands State Game Refuge and the surrounding Mendenhall Wetlands constitute an extraordinarily important area for the production and sustainment of a wide variety of fish, bird, and mammalian species and support a wide array of public recreational uses. The benefits of these habitat resources extend regionally well beyond the refuge boundaries. These values are important enough that the state regulations regarding the MWSGR require that off-refuge transportation corridors be sought in preference to routes transecting the refuge.

Accordingly, I oppose all route proposals that would cross the Mendenhall Wetlands State Game Refuge on the surface. The deleterious effects of such a crossing can be seen in other submittals to this request for comments, but include habitat alteration, disturbance, tidal and freshwater inputs, altered human use patterns, viewshed impacts, etc., not to mention the effects of increased traffic along North Douglas Highway.

Viable route alternatives in my view include Salmon Creek, Eagle Creek, and Downtown, which all offer alternative access to Douglas Island in the case of the existing bridge being blocked for some reason, and facilitate EMS access. I personally don't believe that affordable housing is a valid reason for a second crossing and suspect that much of the enthusiasm for a crossing is for access to developable land and for convenient access to Eaglecrest. Protection of the integrity of the MWSGR steers my choices for route alternatives to the area from Salmon Creek to the existing bridge. The Mendenhall Peninsula option, if constructed so as to avoid the area around the mouth of the Mendenhall River, an especially important area biologically, could also be a viable option.

Thank you for the opportunity to provide comments on this important issue.

Matthew H. Robus
[redacted]

SEALT Comments on Juneau Douglas North Crossing PEL Study Preliminary Alternatives

February 3, 2023

The Southeast Alaska Land Trust (SEALT) submits the following comments to the PEL Study to identify our concerns about the study's process and impacts to the Mendenhall Wetlands State Game Refuge and SEALT in-lieu fee mitigation sites.

The long history of the concept of a second crossing to Douglas Island makes clear that the community is interested in this idea. There is also, however, documented community support for the preservation of the Mendenhall Wetlands State Game Refuge (Refuge).

While SEALT does not oppose the establishment of a second crossing, the habitat and recreation values of the Refuge, as well as the necessity of avoiding SEALT's in-lieu fee mitigation sites, should eliminate from consideration all crossing locations within the Refuge's boundaries. Only four of the eight preliminary alternatives appear to be outside of the Refuge and should be advanced for further consideration.

Process

SEALT has engaged in the PEL Study process by participation on the Technical Advisory Committee and provides the following pieces of feedback related to the Study's process.

Technical Advisory Committee Engagement

SEALT continues to be concerned that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. The Technical Advisory Committee (TAC) meetings since last spring have been exclusively in person, limiting the accessibility of the meetings. Furthermore, materials have not been provided in advance of meetings; it is unreasonable to expect meaningful contributions from committee members without advance time to review materials. Lastly, SEALT provided extensive comments and questions to the study team and TAC on December 20, 2022, requesting a response before Level 1 screening begins or by February 1, 2022. These comments were submitted in response to materials and information presented at the November 17, 2022 TAC meeting, on which the PEL Study team requested feedback. SEALT did not receive a response until close of business on February 2, 2023 (24 hours before closing of the public comment period).

SEALT is perplexed by the purpose of the Technical Advisory Committee, as the process has limited the ability of members to provide substantive contributions, and the PEL Study team has been alternately slow to respond or unresponsive to requests for additional information.

SEALT strongly urges the PEL Study team to meaningfully engage with relevant agencies and experts during the next stages, providing adequate time to review materials and provide feedback. The success of this study, and the project it may enable, will depend on proactive and meaningful collaboration with experts who can ensure that a truly appropriate alternative is selected.

Additional Context Needed

The preliminary second crossing location alternatives have been presented to the public, and comment requested, without context on traffic analyses, crossing design, feasibility, environmental concerns, or legal challenges.

At a minimum, all maps showing the crossing locations should include the boundaries of the Refuge. The community of Juneau has repeatedly demonstrated an interest in seeing the Refuge protected; leaving the Refuge off of the maps is misleading.

SEALT strongly suggests that the data being used to assess each preliminary alternative (relevant traffic studies, environmental resource data, Refuge boundaries, etc.) be shared with the Technical Advisory Committee and the public, so that each alternative can be reviewed in context.

Mitigation Site Protection

SEALT's primary priority is the protection of all of its conservation properties and in-lieu fee mitigation sites potentially impacted by the preliminary second crossing locations.

SEALT is an approved mitigation sponsor with the U.S. Army Corps of Engineers (USACE) and has operated an in-lieu-fee program in Southeast Alaska since 1998, providing compensatory mitigation services to developers seeking permits for projects that result in a loss of aquatic resource functions. SEALT's mitigation services are provided through voluntary transactions with willing landowners.

Mitigation Sites for the Juneau Airport

In 2009, SEALT provided wetland mitigation credits to the City and Borough of Juneau to compensate for the loss of aquatic resource functions resulting from the Juneau International Airport expansion into the Mendenhall Wetlands State Game Refuge. This required compensatory mitigation was outlined in the 2009 Department of the Army permit POA-1981-320-M22 and the April 2007 *Juneau International Airport Final EIS and Section 4(f) Evaluation)*. The 2007 EIS summarized the airport expansion's compensatory mitigation plan, stating that CBJ "would establish an in-lieu fee for the mitigation and provide the fee" to SEALT, in order for SEALT to acquire "accreted lands within the original Refuge boundary, with a goal of fully mitigating for direct unavoidable impacts to the Refuge and for unavoidable impacts to wetlands…caused by the Airport projects within the Refuge."

Since 2009, SEALT has used the in-lieu fee generated by the Juneau Airport expansion project to acquire 22 private parcels adjacent to the Mendenhall Wetlands State Game Refuge as wetland mitigation sites, in accordance with our in-lieu-fee program agreement with the USACE and the 2007 EIS. The SEALT mitigation sites around the Refuge were chosen for the Juneau Airport expansion's impacts specifically because they were the most appropriate in-kind mitigation, as their proximity and function matched the impacted aquatic resources.

Impacts to these mitigation sites would irreparably harm the Mendenhall Wetlands ecosystem and negate the in-kind compensatory mitigation completed for the Juneau Airport expansion. There are very few properties adjacent to the Refuge that would match the aquatic resource functions of the existing mitigation sites. For this reason, impacts to SEALT's mitigation sites would be nearly impossible to adequately mitigate.

Critical Wetland Continuity

In addition to avoidance of direct impacts to mitigation sites (e.g., construction within the legal boundaries of a mitigation site), off-site construction could lead to a significant or complete loss of aquatic resource function on SEALT's mitigation sites.

The construction of a bridge or causeway through the wetlands complex at any location will alter the hydrodynamics and could isolate mitigation sites from sustaining freshwater and tidal inputs, resulting in mitigation sites converting from wetland habitat to uplands. This would have the same result on the function of the in-lieu fee mitigation sites as construction on the site itself. Any outcome that drains those wetland mitigation sites, or alters freshwater and tidal inputs to the wetland mitigation sites resulting in reduced function, would be in direct conflict with the intent of the Juneau Airport's mitigation plan and the mitigation plans for SEALT's mitigation sites.

The PEL Study should remove from consideration all alternatives 1) that pass through SEALT's 22 in-lieu fee mitigation sites or 2) are proximal to mitigation sites and constructed such that significant impacts to the hydrologic inputs are expected (i.e., a causeway).

Refuge Avoidance

Consistent with our 21-year effort to protect the boundaries of the Refuge through in-lieu fee mitigation sites, it is SEALT's priority to ensure the integrity of the Refuge and its habitat, recreation, and ecosystem services. Any crossing structure through the Refuge will irrevocably damage its functionality as a wildlife refuge, recreation destination, and scenic viewshed.

Off-Refuge Construction

AS 16.20.034(i) permits the establishment of a transportation corridor only if it can be demonstrated that there is a significant public need for the corridor which cannot reasonably be met off-refuge. The PEL Study has already identified several crossing locations outside of the Refuge's boundaries that would satisfy the Purpose and Need Statement as presented in November 2022. Therefore, in accordance with this statute, all other preliminary second crossing alternatives should be removed from consideration.

Fragmentation Concerns

Building a crossing within the boundaries of the Refuge would likely effectively create two Refuges by fragmenting the habitat, viewshed, hydrodynamics, recreation opportunities, and other services and functions provided by the Refuge. Examples of the impacts of fragmentation include:

Refuge Users: A second crossing through the Refuge would irreversibly change the ability of recreational and subsistence users to use the area.

1) A second crossing within the boundaries of the Refuge is likely to lead to the prohibition of waterfowl hunting within the Refuge, due to regulations regarding hunting and firearm discharge within certain distances of roadways. Perpetuating access to waterfowl hunting was a key reason for the establishment of the Refuge, and loss of this use would eliminate access to the most accessible and heavily used waterfowl hunting area in Southeast Alaska.
2) The location of a crossing alignment may affect or restrict access to the wetlands from established public access points used by local residents for hiking, walking, hunting, birding, fishing, and cultural activities.

Hydrodynamics: The hydrodynamic connectivity of the Refuge is essential to its continued function as an estuary and wetland preserve. The wetlands of Gastineau Channel are supported by both freshwater inputs and tidal flows from both ends of the channel. The location and method of crossing construction will significantly impact on the area's hydrodynamic connectivity and continued functionality as a globally significant estuarine wetland.

Viewshed: The view across the Mendenhall Wetlands is iconic – after the glacier view, it is the second most important viewshed in the community and was identified as a scenic corridor/viewshed by CBJ's 2008 Comprehensive Plan. This viewshed should be preserved in addition to its rare, unique, and irreplaceable environmental values.

Noise: Establishing a crossing through the Refuge would alter the soundscape, impacting residential communities, wildlife, hunters, and recreational users of the Refuge.

Avoiding Additional Impacts

Over 35-40% of the greater Mendenhall Wetlands complex has been filled by development. The PEL Study has already identified crossing locations outside of the Refuge's boundaries that meet the identified needs. There is ample opportunity to study potential second crossing locations that meet the communities needs and do not impact the Refuge's essential and diminishing resources.

The PEL Study should remove from consideration all alternatives that pass through the Mendenhall Wetlands State Game Refuge.

Conclusion

The Southeast Alaska Land Trust cannot support the PEL Study's preliminary alternatives that impact SEALT mitigation sites and/or the Mendenhall Wetlands State Game Refuge, including: "North Airport", "Sunny Point Area A", "Sunny Point Area B", and "Vanderbilt". These alternatives should be removed from consideration.

SEALT encourages the PEL Study to focus on preliminary alternatives that do not impact the Refuge, including: "Salmon Creek", "Eagle Creek", and "Downtown".

With careful study and design, the "Mendenhall Peninsula" alternative could be located and constructed in a way that would not impact mitigation sites or the Refuge.

SEALT is available for consultation on any alternatives, proposals, and concepts as necessary to develop a successful project that meets the needs of the community.

From:	Morgan McCammon
To:	Hillgartner, Megan G (DNR); Heidemann, Marie E (DOT)
Cc:	Nina Keller Horne; PUB-JDNorthCrossing
Subject:	RE: [EXT] RE: DOTPF N. Douglas Crossing PEL Study - DNR Comments
Date:	Tuesday, February 7, 2023 9:50:32 AM

Good morning Megan,

Thank you for sharing these comments.

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

From: Hillgartner, Megan G (DNR) [redacted]
Sent: Tuesday, February 7, 2023 8:52 AM
To: Heidemann, Marie E (DOT) [redacted]>
Cc: Morgan McCammon [redacted]; Nina Keller Horne [redacted]>
Subject: [EXT] RE: DOTPF N. Douglas Crossing PEL Study - DNR Comments

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Thank you, Marie, I appreciate it. My procedure went well and I should be home in Juneau by the end of the week!

DNR's comment (please let me know if you have any questions):

Thank you for the opportunity to comment on the Department of Transportation and Public Facilities (DOTPF)/City and Borough of Juneau (CBJ) *Juneau-Douglas North Crossing Planning and Environmental Linkages (PEL) Study*.

The PEL study area encompasses lands managed by the Alaska Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), including tide and submerged lands underlying Gastineau Channel and Fritz Cove and land within the Mendenhall Wetlands State Game Refuge (MWSGR).

Per AS 16.20.034 and the 1993 Juneau State Land Plan, DNR maintains management authority of the surface and subsurface estate within the MWSGR and is directed to ensure that actions taken within the refuge are in conformity with the 1990 Alaska Department of Fish and Game (ADFG) MWSGR Management Plan. As required by AS 16.20.034, the ADFG MWSGR Management Plan contains provisions by which CBJ may acquire land from DNR for the purpose of establishing public transportation corridors[1].

At this time, DNR does not have any comment regarding the PEL Study alternatives, screening

process, or alternatives criteria. DNR notes that any disposal of resources on state land within the MWSGR or within DMLW-managed tidelands and submerged lands requires authorization from DNR.

[1]*AS 16.20.034(j): Notwithstanding the provisions of (d) — (i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that there is a superior public need for or use of the land to its use as a state game refuge, after public hearing and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling, or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560 — 44.62.570.*

Thank you!

Megan G. Hillgartner
Southeast Regional Manager

Alaska Department of Natural Resources
Division of Mining, Land and Water
Southeast Regional Land Office
[redacted]

From: Heidemann, Marie E (DOT) [redacted]>
Sent: Friday, February 3, 2023 5:50 PM
To: Hillgartner, Megan G (DNR) [redacted]>
Cc: Morgan McCammon [redacted]; Nina Keller Horne <[redacted]
Subject: Re: DOTPF N. Douglas Crossing PEL Study - DNR Comments

Hi Megan,

We will accept your comments on the 8th.

I hope your procedure goes well.

Marie

From: Hillgartner, Megan G (DNR) [redacted]>
Sent: Friday, February 3, 2023 3:58 PM
To: Heidemann, Marie E (DOT) <[redacted]>
Subject: DOTPF N. Douglas Crossing PEL Study - DNR Comments

Hi Marie,

My apologies for last minute notice – if possible, I would like to request a short extension to submit

our comments on the DOTPF PEL study. I had to fly down to Seattle yesterday and have a minor surgery scheduled for this coming Monday. I am working with my staff to finalize our comments and should be able to provide input to you by **2/8 (Wednesday) at noon**.

Again, I apologize for the delay. Please let me know if this is feasible for you and if you have any questions.

Thanks,

Megan G. Hillgartner
Southeast Regional Manager

Alaska Department of Natural Resources
Division of Mining, Land and Water
Southeast Regional Land Office
[redacted]

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[1]AS 16.20.034(j): Notwithstanding the provisions of (d) — (i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that there is a superior public need for or use of the land to its use as a state game refuge, after public hearing and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling, or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560 — 44.62.570.

The Friends of Fritz Cove's Petition (we are up to 87 signers and growing, includes neighbors from the Mendenhall Peninsula, Fritz Cove Road, Bayview Subdivision, and neighbors out past Fish Creek) opposes the location of a second crossing at the Mendenhall to the North Douglas Boat Launch. This location is the most expensive and most environmentally damaging of all the alternatives. I believe a bench road from the existing bridge to Eaglecrest makes the most sense for now. It can be extended at some future point and will relieve the current and future pressure of traffic on our residential road so our children are again able to ride their bikes and pedestrians are safe. If there must be a second crossing, a crossing at Sunny Point makes use of the existing intersection that is well-designed for this purpose. Any bridge built here must allow the tide to freely ebb and flow. On the mainland side, it will need to avoid property owned now by the SE Land Trust Conservancy which seems do-able. If this alternative is chosen, impacted homeowners on the Douglas side need to be promptly notified so they are able to navigate the Rite of Way process. Thank you!

Barb Mecum [redacted]

31d. Level 1 Screening

DATE	ITEMS	PAGE
2/2/2023	Rebecca Bellmore, Southeast Alaska Watershed Coalition	1285
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3/17/2023	Mendenhall Wetlands Study Group Comments on Draft Level 1 Screening Results	1292
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3/20/2023	Roy Churchwell, Alaska Department of Fish and Game	1308
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3/27/2023	Betsy McCracken, United States Environmental Protection Agency Region 10 Water Division	1315
4/28/2023	Advisory Committee Comment Response Matrix	1318

Dear Ms. McCammon and the Juneau Douglas North Crossing PEL Study Team,

The Southeast Alaska Watershed Coalition appreciates being included in the Juneau Douglas Crossing Stakeholder Advisory Committee and all your efforts on the PEL Study to date. The Watershed Coalition is committed to promoting community-based watershed stewardship that reflects and supports people's deep cultural and economic connection to the land and water in this region. The Watershed Coalition does not own land or have a financial stake in the ultimate outcome of the Crossing decision-making process. Rather, we are interested in ensuring that the best available information about potential environmental impacts informs the decision-making process, and that this information is shared effectively with the public, which may ultimately make the decision about whether or where to build a crossing. We have three key concerns and suggestions at this time:

1. **Solicit meaningful feedback on alternatives and the assessment process:**
   From our perspective, meetings to date have provided little substance for the Stakeholder Advisory Committee to respond to. Maps with approximate locations of potential crossings in the absence of any detailed information about land ownership, environmental context, or other potential restrictions/considerations have made it very difficult to provide much meaningful feedback on alternatives. Assuming similar information has been shared with the Technical Advisory Committee, we have concerns about how participants' expertise is being effectively solicited and incorporated into the alternatives assessment process. We strongly encourage the project team to meaningfully engage with relevant agencies and experts during Phases 1 and 2, giving them sufficient time to assess information that is provided and contribute any new information/data that the planning team does not currently have access to. This will help to ensure that the best available data is being used, and expert knowledge can inform an assessment of how well alternatives "avoid, minimize, and mitigate impacts to the environment" and meet other project needs.
2. **Broaden the assessment of environmental impacts beyond the project footprint:**
   For example, linear feet of stream or acres of habitat impacted directly by the crossing may be similar across different options, but habitat quality, the species that utilize it, and its importance in the larger ecosystem cannot be captured with these metrics. Additionally, roads, bridges, and traffic impact ecosystems beyond their footprint by altering hydrologic dynamics, habitat character, and wildlife corridors. Just as impacts to and opportunities for residential and commercial areas are being considered in a community context, environmental impacts must be assessed beyond the footprint of the project. Engaging with relevant experts as suggested in comment 1 on these issues will provide insights beyond the number of (square) feet of habitat impacted. We strongly encourage the project team to explicitly incorporate a more thorough and scientifically valid assessment of environmental impacts in the assessment process.
3. **Make data relevant to decision-making accessible to the Advisory Committees and public:**
   We suggest that relevant GIS data that is being used to assess alternatives be made available (where legal) not only to Advisory Committees, but also to the public to help inform their assessment of potential impacts and benefits of potential crossings. A web map with relevant layers compiled in one place would allow the public to explore potential impacts of the alternatives in a more meaningful way than current project maps provide for. Additionally, the recent traffic study has been repeatedly cited as supporting an important study need, but this data has not been shared with the Advisory Committees or the public (as far as we can tell).

Having direct access to this study and underlying data would help people to understand more fully current traffic conditions, and, based on the origin-destination study, how much improvement could be expected from different alternatives.

In summary, the Southeast Alaska Coalition suggests that appropriate experts be consulted in a meaningful way and have an opportunity to inform both the underlying data and the assessment process, that environmental impacts be considered more thoroughly than is currently proposed, and that the data that will be used to assess alternatives be made available to the Advisory Committees and the public in an accessible format. We believe taking these steps will help promote informed decision-making and responsible resource stewardship by the community as it determines whether/where to pursue a second crossing.

Sincerely,

Rebecca Bellmore
Science Director
Southeast Alaska Watershed Coalition

SEALT Comments on Level 1 Screening Results

Provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee 3/17/23 in response to the request for comments on the application of Level 1 screening detailed in the 3/2/23 Technical Memorandum on Level 1 Screening Results.

Level 1 Screening Process & Application of Screening Criteria

1) Table 2 (page 5) summarizes the results of screening each alternative for the Additional Goals. For the goal of maintaining the visual, cultural, and scenic identity of Juneau and Douglas Island, the West Sunny Point, East Sunny Point, and Vanderbilt alternatives are assigned a value of "medium." These values should be changed to "low" for the following reasons:
    a. The stretch of Gastineau Channel encompassing the Sunny Point and Vanderbilt Creek alternatives was designated in CBJ's 2008 Comprehensive Plan as a scenic corridor/viewshed (see enclosed figure). The community of Juneau highly values this scenic viewshed and that recognition justifies evaluating this additional goal as "low" for the Sunny Point alternatives and the Vanderbilt alternative.
    b. The community of Juneau further demonstrated its interest in the Refuge in the CBJ Lemon Creek Area Plan.
        i. The plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access; planning for this "multimodal trail" is currently underway.
        ii. This information from the Lemon Creek Area Plan further illustrates the importance of the undisturbed Refuge in the Sunny Point/Lemon Creek/Vanderbilt region for public access and viewsheds. Placing a second crossing in this vicinity would significantly damage the visual and scenic identity of the Lemon Creek neighborhood and the whole Juneau community, as well as undermining current plans to develop recreational resources in this area.
    c. These locations represent some of the widest points of the Refuge, resulting in a significant stretch of open estuarine wetlands, uninterrupted by human development. This open viewshed is particularly unique in Southeast Alaska, where so much of our landscape is dominated by steep mountains and towering trees – only 2% of land area is comprised of tidal estuaries (Ecological Atlas of Southeast Alaska, Audubon Alaska). This iconic view is seen by visitors flying into Juneau International Airport, each tourist traveling from downtown, and, most importantly, every resident who travels on Egan Drive for work, errands, or other daily activities. Placing a large crossing structure at one of these locations would dramatically decrease the visual, cultural, and scenic identity of our community.
    d. Locating a crossing structure at one of these locations would significantly disrupt recreational uses of the Refuge. The Refuge is a unique recreational destination in Juneau, due to its flat elevation profile and open landscape, offering opportunities

unavailable at most of Juneau's parks and trails. A crossing structure would restrict access to the Refuge by creating a barrier impassable by Refuge users, as well as degrading users' ability to enjoy an undisturbed natural environment, significantly impacting the cultural identity of Juneau as a community with easy access to a diversity of outdoor recreation opportunities.

2) Table 3 (page 6) states that all of the alternatives are "Consistent with plans, policies, and development code." Review of this criterion should be updated to reflect that none of the alternatives within the Refuge are consistent with several key planning documents and should be marked "N." The alternatives within the Refuge are inconsistent with the following planning documents:
    a. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
    b. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the as high-functioning estuarine wetland mitigation sites around Sunny Point.
    c. **2013 CBJ Comprehensive Plan**:
        i. The alternatives located within the Refuge's boundaries are also inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
        ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damaging to the visual, cultural, and scenic identity of the community.
    d. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
3) Table 3 (page 7) notes that all of the alternatives received "high" levels of public support, except for the Twin Lakes and Salmon Creek alternatives. Because the figures illustrating levels of public support for the different alternatives presented by the Study Team are not reflective of the email comment log that was shared with the Technical Advisory Committee, it is not possible for

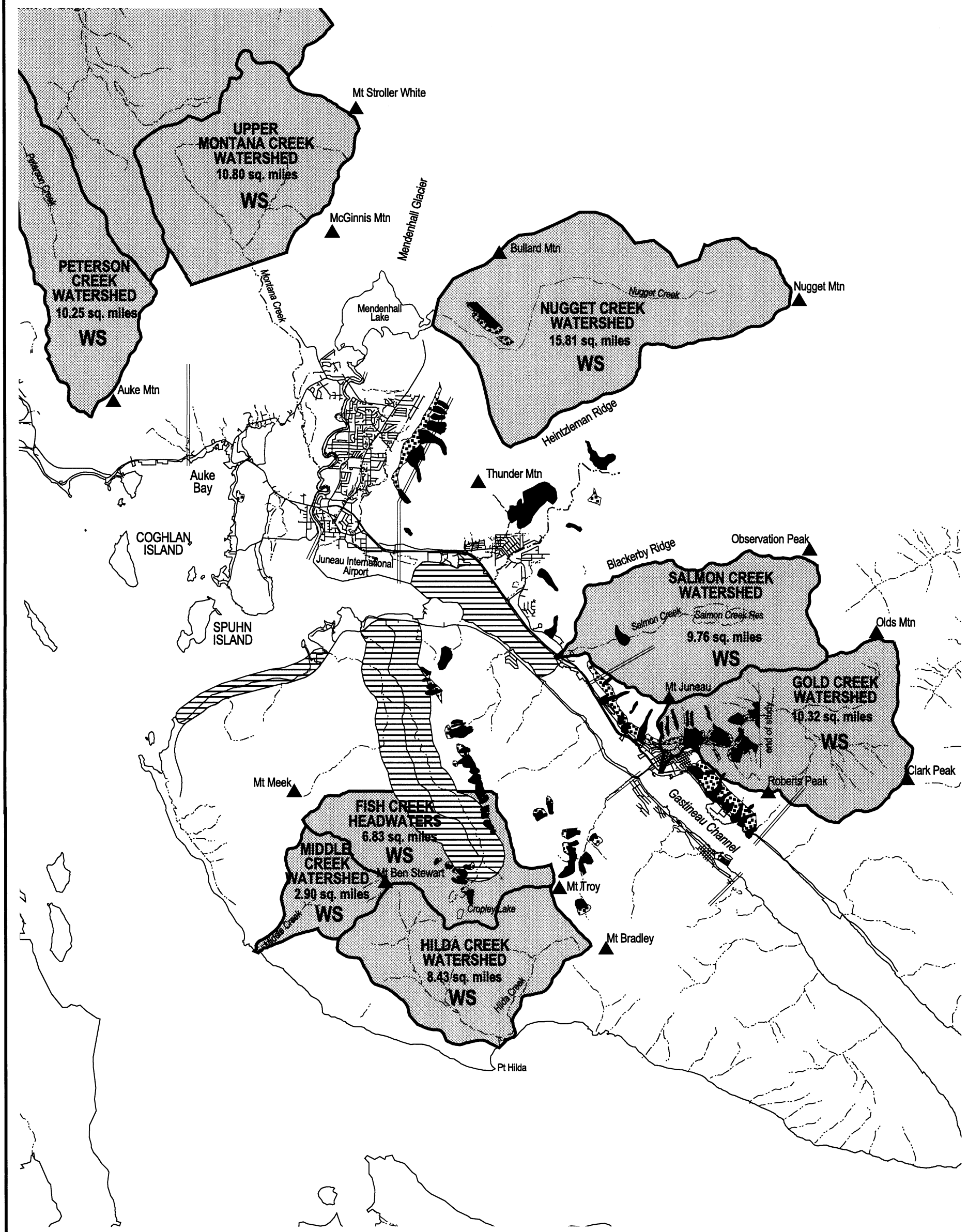
the Advisory Committees to determine whether this is an accurate assessment without being provided the results of the survey. When will the full survey results be shared with the Technical Advisory Committee?

4) The narratives for each alternative screened provides statements about each alternative's impact on travel times, presumably based on the origin-destination study. This study must be made publicly available so that stakeholders and the public can understand the analysis supporting these statements.
5) Please review the Level 1 Alternative Screening Results narratives to ensure consistency across the discussions of each alternative. For example:
    a. The discussion of the Mendenhall Peninsula alternative states that this alternative would result in "adverse visual impacts associated with the construction of a road at the top or [sic], or part way up a ridge" but the discussion of none of the other alternatives discusses the adverse visual impacts of a crossing structure across the Mendenhall State Game Refuge. It is unequal to provide a concrete statement about the adverse impacts of one location (Mendenhall Peninsula) and defer to "further analysis" for the other locations (e.g., page 13, page 15, etc.).
    b. The advantages/disadvantages narratives for the West and East Sunny Point alternatives should be reviewed for consistency, given the similarities between the two alternatives.
    c. The discussion of the Twin Lakes alternative identifies the potential intersection with Egan Drive as a disadvantage of this alternative. All other locations requiring "new" intersections should either have this considered in their analysis (e.g., West and East Sunny Point), or this disadvantage for the Twin Lakes alternative should be removed.
6) In all reports, technical memoranda, and other materials, please note that the Southeast Alaska Land Trust's properties on the Mendenhall Peninsula, around Sunny Point, and on Hendrickson Point are wetland mitigation sites under Section 404 of the Clean Water Act, in addition to being conservation properties (e.g., pages 12 and 15). It is important for all stakeholders and decision-makers to understand that impacts to these sites would result in significant additional regulatory complexity, time, and cost.
    a. In addition, these added regulatory complexities and increased costs should be noted when relevant. For example, on page 15 impacting SEALT conservation property is noted as a disadvantage of the East Sunny Point alternative and this should be expanded to state: "An alignment that meets design standards for horizontal curves will likely impact Southeast Alaska Land Trust conservation properties and wetland mitigation sites, resulting in increased costs and permitting complexity."
7) Based on the appendix tables, it appears that the Level 1 screening for impacts to the hydrologic connectivity at each alternative relied on Figure 11 in the Environmental Setting Report. This figure seems to focus on streams and freshwater inputs. Screening for hydrologic connectivity should include consideration of the tidal flows through the channel, as these saltwater inputs sustain the estuarine wetlands. Are you able to re-screen each alternative in Level 1 screening with this in mind? If not, how will you be incorporating consideration of saltwater inputs into Level 2 screening?
8) At the joint advisory committee meeting on Monday March 6, it seemed that each alternative had additional considerations that weren't presented in the Technical Memo. For example, the Study Team stated that there was some concern about the West Sunny Point alternative's

impacts to the airport, which could be a barrier to construction at that location. How will those additional considerations be documented so that there is public validation for the findings of this study?

Preparing for Level 2 Screening

1) In reports, technical memoranda, and other materials, please provide a definition of Section 4 (f) and other resources with important legal designations.
2) How are you going to consider indirect affects to the natural environment? For example, the degree of impact is different in different locations. A structure with the exact same size of footprint at Sunny Point and Salmon Creek would score exactly the same in your Level 2 screening criteria (as written), but would in reality have dramatically different impacts on the natural environment, Refuge, and habitat.
3) In Level 2 screening, how will you include impacts to Refuge access points, which will affect hunting, fishing, subsistence, and recreational activities for users in the project area?
4) In Level 2 screening, how will you be taking into consideration the costs and challenges of replacement for impacts to our mitigation sites when evaluating the West and East Sunny Point alternatives? It is important that stakeholders and decision makers are made aware of the regulatory complexities, legal challenges, and significant costs associated with these alternatives.
    a. The SEALT mitigation sites provide carefully matched in-kind compensatory mitigation for impacts resulting from the Juneau airport's expansion, as outlined in that project's USACE permit. If the regulators were to approve a scheme to replace these mitigation sites, replacement mitigation sites that provide in-kind mitigation for the airport project would need to be identified and approved by both SEALT and the regulators.
    b. There are few, if any, appropriate parcels within the Mendenhall Wetlands complex that could provide similar wetland function to these special, unique, and rare aquatic sites. For this reason, offsetting the impacts to existing mitigation sites would be a major project to ensure that the permit for the Juneau airport's expansion remains compliant. The functional impacts resulting from a second bridge between Juneau and Douglas Island would then have to be permitted and mitigated separately. We are challenged to see how the costs would be calculated adequately, let alone the functional analysis and planning necessary for "double mitigation".
    c. In order for decision-makers at the municipal and state levels to make an informed choice about the alternatives, their requirements, and their expense, how are you planning to account for the time, money, and work products required for impacting SEALT's mitigation sites?
5) We recommend that the PEL Study Team familiarize themselves with the USACE permitting process and compensatory mitigation under Section 404 of the Clean Water Act in order to fully capture the costs associated with providing mitigation for a project of this scale. It is likely that compensatory mitigation will be a not-insignificant cost for a project of this magnitude and this should be reflected in the analysis of whether each alternative is feasible.



Prepared by: Community Development Department

Mendenhall Wetlands Study Group

Comments on Draft Level 1 Screening Results

March 17, 2023

This is in response to the Draft Level 1 PEL Screening Results presented in the Technical Memoranda of March 6, 2023 during the meeting of the Technical Committee regarding the 2nd Crossing. Our comments related to the Level 1 Screening results are presented below. Please refer to our January 30, 2023 document submitted to the DOWL group concerning the 2nd Crossing of Gastineau Channel.

First, we must point out that the PEL team does not appear ready to complete Level 1 screening. By PEL guidelines, and your described process, key environmental values must be considered, even at this early phase. That is why PEL was created—to efficiently shape a project in light of environmental and regulatory factors early in project development. Unfortunately, the PEL team has not yet gathered or presented useful information on wildlife, habitat, and human use of the Refuge. While more detailed information will likely be needed for additional adjustments and full documentation of Level 2 screening, the agencies and the public should have at hand at least the available information documenting the magnitude and importance of refuge resources, key habitats, uses, access points, and locations BEFORE alternatives are screened for further consideration.

Salmon Creek as the Preferred Alternative

The Salmon Creek crossing stands out as the best alternative to meet the Purpose and Needs identified for the PEL study. The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Salmon Creek crossing is at the intersection to the hospital, thus providing the best alternative for reduced transport/response time and access in case the existing bridge is compromised, or traffic is disrupted or blocked between the hospital and the bridge intersection.

The screening document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. Salmon Creek achieves this objective as well or better than the other alternatives proposed for Level 2 analysis.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan specifies that the use for a public transportation corridor is allowed only if "there is significant public need for the corridor which cannot be reasonably met off-refuge." The Salmon Creek crossing could be designed to avoid the refuge as well as the migratory bird concentration at, and north of, the stream mouth. (see "Hotspots" report, https://juneaunature.discoverysoutheast.org/wp-content/uploads/2018/04/accretion2004-23.pdf). This location best meets the priority Purpose and Needs and is the preferred alternative to avoid the legal conflict with the State law establishing the refuge.

Further, Salmon Creek may also be the preferred alternative under Section 4(f) of the U.S Department of Transportation Act. The act requires that FHWA determine that (1) the impacts of an alternative on 4(f) lands (in this case the MWSG Refuge) are de minimis, or (2) undertake a Section 4(f) Evaluation. If the 4(f) Evaluation identifies a feasible and prudent alternative that completely avoids Section 4(f) properties, it must be selected. We think Salmon Creek meets the purpose and need for the project, and if it is determined to be feasible and prudent to build, it will cause either de minimis impact on the Refuge or avoid it completely.

The draft Level 1 screening document appears to largely ignore the planning and regulatory issues outlined in the preceding two paragraphs. Table 3 (page 6) of the screening document shows that all of the alternatives rated are "consistent with plans, policies, and development code." None of the alternatives within the Refuge are consistent with the Refuge's management plan or with Section 4(f). They therefore should be marked (N).

The DOWL presentation did raise concerns on the feasibility of the Salmon Creek crossing due to the height and distance requirements to land it at the hospital intersection. The MWSG encourages that the Level 2 analysis for this alternative include consideration of connection points from the southeast end of Channel Drive to the southern edge of the exposed Salmon Creek delta to ensure that due diligence is given to the feasibilty of the crossing and to avoidance of the referenced migratory bird hotspot.

Eagle Creek

Our Study Group also favors keeping the Eagle Creek alternative for continued analysis. The risk of avalanche hazard should be evaluated to determine if this is a reasonable alternative. The Eagle Creek crossing site does meet the primary Purpose and Needs, and is also completely outside of the Refuge and further from the bird concentration area at the mouth of Salmon Creek, thus minimizing environmental impact and avoiding legal challenge for permitting a transportation corridor in the refuge. Analysis of this crossing option should consider moving the mainland landing site further northwest to reduce exposure to the avalanche zone.

Ranking

We believe that the impacts of the crossings within the Refuge, if included, need to be ranked in the Level 2 analysis. Currently, rankings between the cross-Refuge options are totally absent. From the standpoint of impacts to Refuge resources and users, the experts within our Study Group agree that the Sunny Point crossings have by far the greatest impact because they traverse the heart of the Refuge. Elevated routes at Vanderbilt and Twin Lakes, although crossing the Refuge, create fewer impacts to wetlands and human use. Shorebird and waterfowl uses in these areas are significant, however. The screening analysis should evaluate resource values and rank the different cross-refuge alternatives to estimate their relative impacts.

We were encouraged to hear the DOWL team tell the Stakeholder and Technical Advisory Groups that if any of these three cross-Refuge options are included in the Phase 2 analysis only elevated structures will be considered. All three of these crossing options run perpendicular to the tidal flow that creates the highly diverse and productive wetlands in the Refuge. A solid fill structure at any of these locations would have substantial impacts on tidal flows and thus a large area of the Refuge. Project proposals for solid fill causeways would face legal challenges and are unlikely to be permitted and therefore should not be included in the Level 2 analyses.

Resource Analysis

As part of the Level 2 screening the PEL Team should develop comprehensive and geographically specific information on both habitats and fish and wildlife use of the various parts of the Refuge, particularly areas affected by potential cross-refuge structures.

While wetlands are important to wildlife and have their own regulatory protections, your ranking must also consider the full range of wildlife use of project area habitats, given that mudflats and resting areas are also extremely important. Such areas must be identified for Level 2 screening for both the on- and off-refuge alternatives. See the SEALTrust 2004 habitat maps that could be updated to roughly identify key habitats such as low marsh vs high marsh, mudflats, mussel beds, open water and algal mats (https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf).

While existing bird observation data such as the "Hotspots" report noted above, as well as eBird, are focused on accessible refuge margins, they should be consulted to see where seasonal bird concentrations have been documented and where additional data are needed. Experienced observers, photographers, and hunters, including this group, can help to fill some of the information gaps early in this process, although additional information will be needed to support full consideration of crossing sites.

As mentioned above, all three of the areas considered for cross-Refuge structures should have further analysis. However, the Sunny Point crossing alternatives are of particular concern. These crossings impact the largest acreage of wetlands in a highly diverse and productive area of the Refuge. They will likely alter the hydrologic regime of the wetlands and negatively impact, not only Refuge lands, but also the wetlands protected by the SEAL Trust at Sunny Point as mitigation for the wetland impacts of the recent Airport expansion. The Sunny Point area is also at the top of the public use areas on the Refuge, especially for waterfowl hunting.

Public Uses Analysis

In the technical memoranda that explain the results of the draft Level 1 screening process the subject of public uses of the Mendenhall Wetlands and more specifically the MWSGR is almost completely omitted from consideration. Birding, dog-walking, photography, and other outdoor pastimes and the way that alternatives could impact them are not mentioned; the lone exception is the disclosure that the Sunny Point (east) alternative would encroach on a popular and long-standing waterfowl hunting area. However, even in that case there is no estimate of the effects of that encroachment, and it is quite likely that state or borough shotgun discharge setbacks from any of the mid-refuge crossings would severely constrain or shut down hunting in the refuge. State refuges are public use areas as well as environmental conservation areas and screening potential alternatives without consideration of the effects upon those uses ignores real differences between them. In general, the effects of a crossing will have much less impact on public uses at the eastern/southern end of the study area in more developed areas; if there was an "Effects on public uses" matrix line Salmon Creek would have a better rating than the cross-Refuge routes.

Bench Road

It is premature to choose a second Mainland-Douglas Island route before a planning effort for the northern and western portions of the island is completed, and illogical to pump additional traffic onto the North Douglas Highway, which ADOT has said is incapable of safely handling increased levels of use. The North Crossing PEL process has simultaneously and explicitly excluded a North Douglas Bench Road from the project description and yet shown it on project maps because it is a critical factor in making the project work. Land use planning for future development on the island and provision of a bench road or some other approach to avoiding impacts to the North Douglas Highway should precede, not follow, implementation of a second crossing. To that end, wetland mapping for this area should include the CBJ 2014-15 wetland boundaries that are more accurate than the NWI maps, particularly for forested wetlands.

Mitigation

Finally, some have argued that impacts of Refuge crossings can be fully mitigated and thus should continue to be considered. The Mendenhall Wetlands Study Group strongly disagrees. The Refuge consists of functioning intertidal wetlands which cannot be successfully manufactured. Even if they could be, the FAA has not allowed enhancement of wetland habitats on the Refuge for fear of increasing hazards of bird strikes. Cross-Refuge route alternatives impact primarily intertidal wetlands, which in Alaska are owned by the municipalities and the State, thus there are few if any options to purchase and protect functioning intertidal wetlands as mitigation. It is important to remember that, as we illustrated in our previous comments to the PEL Study Group (see: January 30, 2023 Mendenhall Wetlands Study Group document), the Mendenhall Wetlands are a unique and rare occurrence in Southeast Alaska. They rank along with the Stikine and Yakutat Forelands in their regional and global importance to migrating birds. They also provide significant support to the other fish and wildlife of Juneau and the region. We should do all we can to make sure Juneau meets its needs for safety and expansion without destroying this critical and unique resource that is at the center of our community.

From: David Hanna
To: Talli Vittetoe; Morgan McCammon; Steven Noble
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Sunday, March 19, 2023 7:09:12 PM

Some people who received this message don't often get email from [redacted]. Learn why this is important

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Greetings,
Below are my comments on the ranking of the alternatives and the process used:

To begin with, I feel one of the most important parts of the process has a serious flaw and this is the projected traffic study. To only consider current traffic needs and patterns for a project that is meant to allow growth for the community is unacceptable. The North and West side of Douglas Island are the logical candidates for residential, commercial, and industrial expansion. Indeed the fact that all of Juneaus' freight and most of its fuel has to be trucked through an avalanche zone and a landslide zone through the heart of town on its busiest street gives many of us pause and is a strong incentive for moving these facilities to West Douglas. With this in mind, it is premature to remove both the north of the airport alternatives.

The actual ratings of the alternatives reveal some additional shortcomings. I will address some of these in order.

The Salmon Creek alternative does mention that there are concerns with right of way acquisitions. It could go on to explain that this area is currently the only alternative location to bring large freight barges into and handle the freight loads. Two of the major freight distributors are located here which is also concerning. Disrupting this could have serious consequences.

The Vanderbilt location would have a direct impact on the following streams; West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek. It would also require substantial fills in the intertidal areas.

In contrast, The Sunny Point location is strategically located at the existing interchange needing little fill in the wetlands and would not impact any of the above mentioned streams. Three of these streams are already listed as impaired waterbodies. On the Douglas Island side, the city already owns enough property that no residences need be impacted. They also own property directly across the Douglas Highway which would allow access to a future bench road.

The north side of the airport scored low for some puzzling reasons. A low scoring for proximity to commercial districts flies in the face of reason. Any realtor will tell you that proximity to a major thoroughfare raises the value of the property. It does not diminish it. This alternative would actually open up more industrial zoned property. Future development on West Douglas will demand quick access to the Mendenhall Valley population center. Furthermore, it is debatable as to the need for a tunnel in this location.

The Mendenhall Peninsula route is another that would be ideal once North and West Douglas

are developed. The pitfalls are stated that it would divide neighborhoods, be too close to residential areas and necessitate a 140' tall bridge due to the grade change. The fact is the central route would appear to avoid all existing residential as it opened up additional CBJ land for much needed housing. A perusal of google earth shows that there is adequate space to maintain a desired 6% grade down to a 40' elevation. This is a dramatic difference. In addition, I feel that the fact that this option would likely have the least impact on the Mendenhall Refuge needs more recognition.

For these and other reasons I request that the ranking be re-visited. In addition, I feel that none of the alternatives can be seriously considered until the issue of not considering future development is cured.

Respectfully,
Dave Hanna
Eaglecrest Board and Access Alaska Board

On Fri, Mar 17, 2023 at 4:15 PM Talli Vittetoe [redacted] > wrote:

> Good afternoon Advisory Committee Members,
>
> Thank you for continued participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We would like to remind you that comments on the attached draft Level 1 Screening Memo are due by **March 20, 2023.**
>
> Kind regards,
>
> **Talli Vittetoe**
> Public Involvement Assistant
>
> DOWL
>
> [redacted]
>
> *dowl.com*
>
> ---
>
> **From:** Morgan McCammon [redacted] >
> **Sent:** Tuesday, March 7, 2023 11:51 AM
> **To:** Daugherty, Leslie K (DOT) <[redacted]
> [redacted] Cody Hargreaves [redacted];

[redacted]; 'Daniel King' [redacted]; Dave Hanna <[redacted]>; Alaska Concrete Casting [redacted]
Cc: Heidemann, Marie E (DOT) <[redacted]; Gentemann, Christy D (DOT) <[redacted]>; Lockwood, Gregory K (DOT) [redacted]ka.gov>; Kolwaite, Douglas S (DOT) [redacted]aska.gov>; Mounce, Christina L A (DOT) [redacted]aska.gov>; Katie Koester [redacted]; irene.gallion [redacted].org>; Alec Venechuk [redacted]>; Steven Noble [redacted] Renee Whitesell [redacted]>; Nina Keller Horne [redacted]com>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]>; Sean Holland <[redacted]>; Michael Horntvedt [redacted]trix.com>; Mike Hall <[redacted]>
Subject: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up

Good morning Advisory Committee Members,

Thank you for your participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We appreciate the feedback provided at the meeting.

For those who were unable to attend, please see the attached presentation from yesterday's meeting. Also attached is the draft Level 1 Screening Memo. **Please provide comments on this draft memo by March 20, 2023.**

As many of you are aware, the City and Borough of Juneau (CBJ) Assembly Public Works and Facilities Committee held a public work session on March 2, 2023, requesting public testimony on the study and any future project that may result. The Assembly Committee has said they will provide additional opportunities for public testimony and will accept comments electronically. The CBJ

Assembly email address, work session packet, and Zoom meeting recording are available in the links below:

- CBJ Assembly email address: BoroughAssembly@juneau.gov *Please share your comments with the study team as well: jdnorthcrossing@dowl.com

- SOA DOT&PF Presentation - 3/2/2023 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf

- YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Reconsider Level 1 Step 1: Twin Lakes, Salmon Creek, Eagle Creek and Downtown do not meet proposed purpose and need. Twin Lakes and Salmon Creek should also be removed from Additional Goals Screening.

Sunny Point provides the most leverage in improved response times.

Emergency response times include medic response. Assuming getting medics to the victims improves outcomes, "Improved Emergency Response Times" and "Access to critical health care and emergency services" have the same constraint – how fast can medics get there?

When looking at the distance between stations, a point half way between the two is the point at which either one has an arrival advantage.

Manned stations that could come into play with the crossings include:

Station 1, Downtown: 820 Glacier Highway

Station 3: Glacier: 1700 Crest Avenue

Station 4: Auke Bay: 11900 Glacier Highway

Considering the half way point between stations, the crossings that improve response times are considered below. Also, I've asked GIS to tell me how many acres of CBJ land are to the northwest of the midpoint, then assumed 10% of that land would be developed with single-family homes on 14,000 square foot lots (conservative). The table below shows how many existing homes would see improved service, and provides an estimate on developed homes that would be serviced.

Alternative	Improved response existing homes	Acres of CBJ Land	# of dwellings 10% developed
Vanderbuilt	277	4556	1418
Sunny Point	291	4624	1439
North Airport	196	4061	1264
Mendenhall Peninsula	96	3202	996

Details are provided below.

Eagle Creek, Salmon Creek, and Twin Lakes crossings eliminated, with no improvement to response times.

Response times don't improve until half way between the existing stations. Downtown is the more efficient station until you get to that point.

Downtown to Glacier is 7.5 miles, 11 minutes

Middle of Twin Lakes is about half way.

Options east of this do not provide improved response.

Salmon Creek and Eagle Creek do not provide improved response. Twin Lakes provides redundant response.

Vanderbuilt improves response times for 277 existing homes.

Assuming a straight Vanderbuilt crossing landing at approximately 7850 North Douglas Highway, the distance between the Downtown Station and Glacier Station is approximately 8.7 miles (white line).

The half way point lands at 7480 Glacier Highway (star). Northeast of this area the Glacier Fire Station would provide a faster response time.

There are 277 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,556 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,417 additional homes.



Sunny Point improves response times for 291 existing homes.

Using the western access for the Sunny Point crossing, the distance between Glacier Station and Downtown is approximately 8.2 miles (white line).

The half way point lands at 7160 North Douglas Highway, approximately 1,500 feet east of the midpoint from Vanderbuilt.

There are 291 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4624 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,439 additional homes.



North Airport improves response time for 196 existing homes.

There is approximately 7.1 miles between Glacier Station and Auke Bay Station. Industrial Boulevard is approximately 0.2 miles from Glacier Station, so Glacier Station would provide the most efficient response time.

The mid point between Glacier Station and the Downtown Station is approximately 8687 North Douglas Highway.

There are 196 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 4,061 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 1,264 additional homes.



Mendenhall Peninsula improves response time for 96 homes.

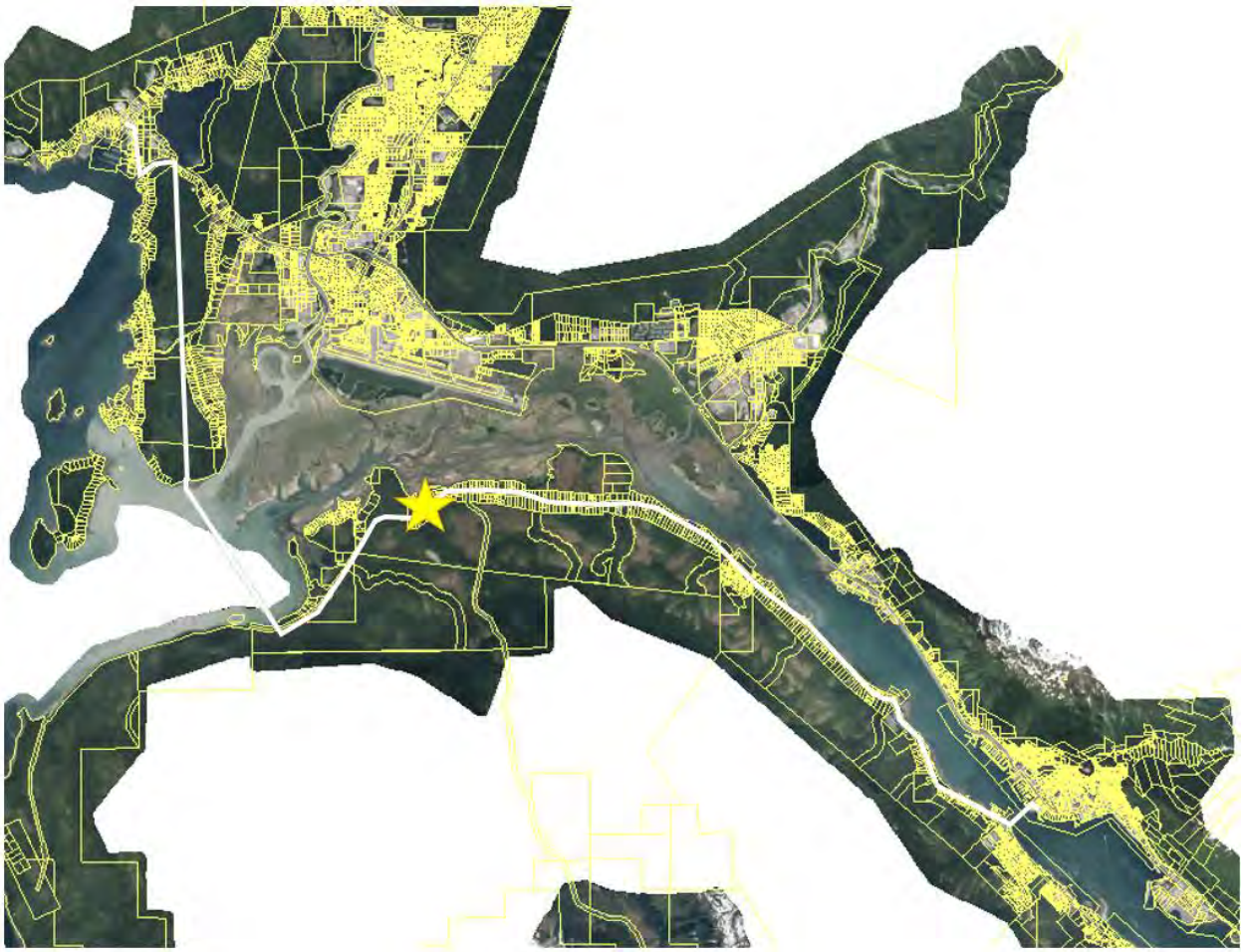
Auke Bay station is 0.75 miles the MenPen alternative intersection with Glacier Highway.

There is approximately 13.8 miles between the Auke Bay Station and the Downtown Station using the proposed MenPen alignment.

The midpoint is 10001 North Douglas Highway.

There are 96 housing units northwest of the midpoint on North Douglas Highway.

There is approximately 3,202 acres of CBJ land. If 10% of this is developed with lot sizes of 14,000 square feet (twice the required size of D5, to account for right-of-way and undevelopable space), there could be 996 additional homes. Unlike other alternatives, this option may open up residential land along the project alignment.



From: Christine Woll
To: Morgan McCammon
Subject: [EXT] Re: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Monday, March 20, 2023 9:18:52 AM

[You don't often get email from [redacted]. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

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Hi Morgan -

Thank you for this opportunity to comment. I have a few related comments for consideration. I am speaking as an individual and do not represent the Assembly as a body in my comments.

The stated reason for many who support a second crossing is ability to develop on the west side of Douglas Island. As a result, there may be many people and groups who are disappointed to not see the two northernmost options move forward, given that they provide the shortest route from this area to the Mendenhall Valley and hospital. If you move forward with eliminating these choices, I would suggest you better document the reasons for removal (ie., the infeasibility of these options). For example, providing a cost estimate of these options in the memo would provide a more compelling argument that these options are worth eliminating at this phase. Otherwise, you will have many in the community continue to hold up these alternatives as the best alternatives, which will severely hamper the ability of the community to bring this project to fruition.

If you are not able to provide a bit more detail on the cost/feasibility for those two alternatives, I'd suggest moving those alternatives forward to the next stage so that you CAN provide that detail. Although I agree that these two alternatives are likely not the best routes given those feasibility concerns, I do worry that if there is still questions in people's minds about that then the project will hit political roadblocks early.

On a related note, my understanding is that a second crossing can only be built across the Refuge if it can be shown that other alternatives are not feasible. I'm not legal expert, but that suggests to me that providing more detail on the feasibility of the Mendenhall Peninsula option will be necessary if people want to move forward with any of the options suggested that run through the Refuge. I'm not advocating for those alternatives that run through the Refuge nor the Mendenhall Peninsula option, but instead just pointing out that more feasibility information may be helpful for the northern routes to answer important questions early.

Thanks,
Christine Woll
City and Borough of Juneau
District 2 Assembly member

> On Mar 7, 2023, at 11:51 AM, Morgan McCammon [redacted] > wrote:
>
> <JDNC_DRAFT Level 1 Screening_Combined Memo.pdf>

From: Churchwell, Roy T (DFG)
To: Morgan McCammon; Daugherty, Leslie K (DOT); Alimi, Adeyemi S (DEC); Kanouse, Kate M (DFG); Meitl, Sarah J (DNR); [redacted]; Patty Wahto (DOT-sponsored); david.gann; linda.shaw; [redacted]; Rypkema, James (DEC); [redacted]; Cody Hargreaves; [redacted]; Teske, Daniel J (DFG); Purves, Nathan A (DOT); Bjornlie, Nichole L; Markegard, Sarah J; [redacted]; Kroes, Preston M (DNR); Hillgartner, Megan G (DNR); Auger, Mason J (DNR); [redacted]; Despain, Timothy J (DPS); [redacted]; Holst, Brian (CED sponsored); [redacted]m; robert venables; [redacted]; Schlingheyde, Catherine (LEG); [redacted]; King, Daniel (CED sponsored); [redacted]; Dave Hanna; Alaska Concrete Casting
Cc: Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Mounce, Christina L A (DOT); Katie Koester; irene.gallion; Alec Venechuk; Steven Noble; Renee Whitesell; Nina Keller Horne; Jovie Garcia; Theresa Dutchuk; Sean Holland; Michael Horntvedt; Mike Hall
Subject: [EXT] RE: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up
Date: Monday, March 20, 2023 9:04:37 AM

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hello Morgan and PEL Study Team,

I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document.

Roy

From: Morgan McCammon [redacted]>
Sent: Tuesday, March 7, 2023 11:51 AM
To: Daugherty, Leslie K (DOT) [redacted]>; Alimi, Adeyemi S (DEC) <[redacted]>; Kanouse, Kate M (DFG) <[redacted]>; Churchwell, Roy T (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]; Patty Wahto (DOT-sponsored) [redacted]>;

david.gann <[redacted]; linda.shaw [redacted];
[redacted]; Rypkema,
James (DEC) [redacted]
Cody Hargreaves <[redacted]; Teske, Daniel J
(DFG) <[redacted]>; Purves, Nathan A (DOT) <[redacted]>; Bjornlie,
Nichole L <[redacted]; Markegard, Sarah I <[redacted]>;
[redacted]; Kroes, Preston M (DNR) <[redacted]>; Hillgartner, Megan G
(DNR) [redacted]; Auger, Mason J (DNR) <[redacted]>;
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]; Despain, Timothy J (DPS) [redacted]
[redacted] Holst, Brian (CED sponsored) [redacted]
[redacted] robert venables
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]; Schlingheyde,
Catherine (LEG) [redacted];
King, Daniel (CED sponsored) <[redacted]
[redacted] Dave Hanna [redacted]>; Alaska Concrete Casting
[redacted]>
Cc: Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT)
[redacted]>; Lockwood, Gregory K (DOT) <[redacted]>;
Kolwaite, Douglas S (DOT) <[redacted]>; Mounce, Christina L A (DOT)
<[redacted]; Katie Koester [redacted]; irene.gallion
[redacted]>; Alec Venechuk [redacted]>; snoble
[redacted]; Renee Whitesell <[redacted]>; Nina Keller Horne
[redacted]; Garcia, Jovie A (DOT sponsored) [redacted]>; Dutchuk, Theresa
(DOT sponsored) [redacted]>; Holland, Sean (DOT sponsored) [redacted]>;
Michael Horntvedt <[redacted]>; Mike Hall [redacted]
Subject: Juneau Douglas North Crossing PEL Study Advisory Committee Meeting Follow Up

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Advisory Committee Members,

Thank you for your participation in the Advisory Committees for the Juneau Douglas North Crossing PEL Study. We appreciate the feedback provided at the meeting.

For those who were unable to attend, please see the attached presentation from yesterday's meeting.

Also attached is the draft Level 1 Screening Memo. **Please provide comments on this draft memo by March 20, 2023.**

As many of you are aware, the City and Borough of Juneau (CBJ) Assembly Public Works and Facilities Committee held a public work session on March 2, 2023, requesting public testimony on the study and any future project that may result. The Assembly Committee has said they will provide additional opportunities for public testimony and will accept comments electronically. The CBJ Assembly email address, work session packet, and Zoom meeting recording are available in the links below:

- CBJ Assembly email address: BoroughAssembly@juneau.gov *Please share your comments with the study team as well: jdnorthcrossing@dowl.com
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- YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

Juneau Audubon Society
501 (C) (3) E IN 92- 0100446
P.O. Box 21725
Juneau, AK 99802
www.juneau-audubon-society.org

20 March 2023

DOWL
9085 Glacier Highway, Suite 102
Juneau, AK 99801

PEL Study Team:

Please find comments below regarding recent decisions and details related to the PEL Study transitioning to Phase 2 of the Juneau Douglas North Crossing ("second crossing"). Most of the comments were shared with DOWL during a meeting at their Juneau office on January 30, 2023. I summarize those comments, and have added new relevant information in this letter for the purpose of documentation.

1. General Positions
   - JAS is not offering an opinion on where or if a bridge should be built; rather, we seek to underscore the risks of significant disturbance within vital bird areas with a goal of preventing any construction in the Mendenhall Wetlands Complex.
   - JAS supports the inclusion of alternatives that do not enter tidal wetlands or nearby critical wildlife habitat.

2. Key Points
   - The Mendenhall Wetlands Important Bird Area provides vital stopover habitats that are limited within Southeast Alaska, most notably saltmarsh/grasslands and expansive glacial-fed tidal flats.
   - Fragmentation of wetlands (regardless of mitigation) diminishes habitat quality and reduces abundance and diversity of birds that inhabit or seasonally use habitats.

3. Threats/Risks
   - Construction degrades feeding and resting areas, especially for migratory shorebirds.
   - Air and habitat pollution from vehicle traffic (hydrocarbons, litter).
   - Light and noise pollution and disturbance.
   - Collisions (vehicles, bridge structural elements).

Thank you for the opportunity to offer comments.

Sincerely,

WPSmith

Winston P. Smith, Ph.D.
JAS Conservation Committee Chair

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
SECOND CROSSING COMMITTEE

COMMENTS ON PEL STUDY
LEVEL I SCREENING RESULTS

MARCH 20, 2023

The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the Level I Screening Results presented in a technical memorandum dated March 2, 2023, and also participated in the Technical and Stakeholder Advisory Committee meeting on March 6, 2023, and has the following comments on the screening results and issues that the PEL study team will be considering at Level II Screening.

The PEL study team has recommended that only five of the preliminary alternatives advance for further detailed development – West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek. Consistent with our prior comments (and also with comments we made during the last round of second crossing review, in 2005-07), NDNA does not take a position on which of these alternatives is preferable or that best addresses our concerns about impacts to the North Douglas area and our neighborhood. But we want to make several points regarding how these alternatives should be evaluated.

1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.

2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.

3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.

4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.

5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.

Thank you for considering these comments.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3188

WATER DIVISION

March 27, 2023

Ms. Marie Heidemann
Juneau Douglas North Crossing Project Manager
Alaska Department of Transportation and Public Facilities
Juneau, Alaska 99811

Dear Ms. Heidemann:

The U.S. Environmental Protection Agency has been participating in Technical Advisory Committee (TAC) meetings regarding the Juneau Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) study and has reviewed documents available on the project website.[1] EPA provided preliminary comments relative to our authorities under the Clean Water Act (January 13, 2023), and subsequently attended a virtual meeting on March 6, 2023, referenced as "Meeting No. 3." In response to the March 6th meeting, the TAC was asked to provide feedback on the Draft Level 1 Screening Results Technical Memorandum [2](TM). In an effort to continue to participate in early planning and provide regulatory background, EPA is providing additional preliminary comments related to the restrictions on discharges of dredged or fill material under the Clean Water Act 404(b)(1) Guidelines (Guidelines).[3]

PURPOSE and NEED/ Level 1 Alternative Screening

The stated project purpose and need statement (Updated November 2022) of the JDNC PEL indicates the purpose of the study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The Project's stated purpose and need statement is not specific to identified traffic concerns. In addition, the Juneau-Douglas Island population growth projections that would contribute to increased traffic have not been realized. At present, it is not clear that the need for the Project has been well substantiated. EPA recommends that the purpose and need more specifically incorporate the problem that would be addressed/solved by completing the project.

PRACTICABLE ALTERNATIVES/IDENTIFYING THE LEDPA

EPA authority under the Clean Water Act is to review project proposal alternatives for compliance with the restrictions on discharge contained within the Guidelines. Compliance with the Guidelines must be demonstrated before proposed discharges of dredged or fill material may be permitted.

Specifically, the Guidelines identify several restrictions on discharges. The first of these restrictions specifies that, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."[4] An

[1] https://www.jdnorthcrossing.com/.
[2] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[3] 40 CFR § 230.10.
[4] 40 CFR § 230.10(a).

alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes.[5] Where the activity associated with a discharge is not "water dependent," practicable alternatives that do not involve a discharge to wetlands and other special aquatic sites "…are presumed to be available, unless clearly demonstrated otherwise."[6]

Once practicable alternatives are determined for a proposed discharge, only the Least Environmentally Damaging Practicable Alternative (LEDPA) that meets the project purpose and need may be authorized. Identification of the LEDPA is achieved by performing an alternatives analysis (AA) that evaluates the direct, secondary/indirect, and cumulative impacts to waters of the United States (WOTUS) resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.[7] EPA recommends the Project incorporate a formal LEDPA AA into the Project process to facilitate permitting decision making.

RANKING/SALMON CREEK ALTERNATIVE

Based on the Appendix; Level 1 Screening Results Overview[8] (page 28) under Step 2 *Additional Goals, Avoid, minimize, and mitigate impacts* to the environment, there are three categories: "high", "medium" and "low". A ranking of "high" means there is a high potential for the alternative to avoid impacts. While it is difficult to directly compare the aquatic resource impacts without knowing the designs of each alternative, the project ranking of "medium" was assigned (pages 29 and 37) to the Salmon Creek alternative. The other six alternatives are ranked as having "low" potential to avoid, minimize and mitigate impacts; with the no-build alternative ranking "high". EPA encourages the Project to consider and fully evaluate the Salmon Creek crossing as being the potential LEDPA alternative, while also meeting the project's stated purpose and need. While the TM states that there are challenges tying in with the Egan Drive/Channel Drive Intersection, there is also opportunity to upgrade this Juneau mainland intersection to improve current conditions. As noted in the TM and the North Crossing PEL Study Environmental Setting (ES) document,[9] the Salmon Creek Alternative is outside of the Mendenhall Wetlands State Game Refuge, would require the shortest crossing span, impact the least amount of wetlands (ES document, page 80, Figure 14, Wetlands in the Study Area), and least amount of documented Anadromous waters (ES document, Page 87, Figure 16; Anadromous fish habitat within the study area). Based upon information provided thus far, it also appears this alternative may require the least amount of intertidal dredge and fill impacts.

POTENTIAL DREDGING

Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems concerned.

EPA has been working with the Corps Alaska District Civil Works and Regulatory Programs since early 2020 to develop an Alaska-specific Dredged Material Evaluation Framework (AK DMEF) to provide

[5] 40 CFR § 230.10(a)(2).
[6] 40 C.F.R. § 230. 10(a)(3).
[7] 40 C.F.R. § 230.10(a)(2).
[8] JD North Crossing PEL Study Technical Memorandum, Level 1 Screening Results, March 2, 2023.
[9] JD North Crossing Environmental Setting, December 2022.

regional specificity for implementing federal sediment evaluation and testing regulations.[10] All regional implementation manuals are based on the process and procedures outlined in the Inland Testing Manual, a national guidance document authored by EPA and the Corps.[11] The Alaska District and EPA agreed to use the Seattle District's Dredged Material Evaluation and Disposal Procedures User Manual (User Manual)[12] as the template for the AK DMEF for evaluating the suitability of dredged material for in-water disposal under the Guidelines.[13] EPA recommends using the User Manual as regionally specific interim guidance for evaluating the suitability of dredged material from this project for in-water disposal.[14]

The draft AK DMEF, User Manual, and Inland Testing Manual include a tiered approach to sediment characterization for dredging projects. More specifically, these guidance documents outline four tiers of evaluation: 1. Site Evaluation and History, 2. Chemical Testing, 3. Biological Testing, and 4. Special Studies. Every dredging project is subject to a Tier 1 evaluation to determine if enough information exists to make a decision on whether dredged sediments will be suitable for open-water disposal. The presence of an adequate baseline is part of this determination. The Tier 1 evaluation may be the only tier required for a suitability determination, or it may inform evaluation by other tiers. The tiered analysis, provides the information needed to make a factual determination as required by the Guidelines.[15]The need for and extent of the Tier 1 evaluation should be incorporated into the Project, depending on the alternative selected.

The EPA appreciates the opportunity to provide comments on the proposed project. We look forward to working with the ADOT&PF and the TAC as necessary to meet the requirements of the regulations under the Guidelines. Should you have any questions or require further information, please do not hesitate to contact me at [redacted]

Sincerely,

Betsy McCracken
Wetlands and Oceans Section

cc: Steve Noble P.E., Project Manager, DOWL Engineers

[10] 40 C.F.R. § 230 Subpart G.
[11] Evaluation of Dredged Material Proposed for Discharge in Waters of the US- Inland Testing Manual, Office of Water, EPA and Operations, Construction, and Readiness Division, Army Corps, February 1998, 176 pages. Available at: https://www.epa.gov/sites/default/files/2015-08/documents/inland_testing_manual_0.pdf.
[12]Dredged Material Evaluation and Disposal Procedures User Manual, Dredged Material Management Office, Seattle District, July 2021, 167 pages. Available at:https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/5397.
[13] 40 C.F.R. § 230.60.
[14] Per 40 C.F.R. § 230.61(a), which allows for interim guidance on sediment testing procedures under the Guidelines.
[15] 40 C.F.R. § 230.11.

Comment Number	Comment	Response	Commentor	PDF Page	Location
1	Table 2 (page 5) summarizes the results of screening each alternative for the Additional Goals. For the goal of maintaining the visual, cultural, and scenic identity of Juneau and Douglas Island, the West Sunny Point, East Sunny Point, and Vanderbilt alternatives are assigned a value of "medium." These values should be changed to "low" for the following reasons: **a.** The stretch of Gastineau Channel encompassing the Sunny Point and Vanderbilt Creek alternatives was designated in CBJ's 2008 Comprehensive Plan as a scenic corridor/viewshed (see enclosed figure). The community of Juneau highly values this scenic viewshed and that recognition justifies evaluating this additional goal as "low" for the Sunny Point alternatives and the Vanderbilt alternative. **b.** The community of Juneau further demonstrated its interest in the Refuge in the CBJ Lemon Creek Area Plan/. i. The plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access; planning for this "multimodal trail" is currently underway. ii. This information from the Lemon Creek Area Plan further illustrates the importance of the undisturbed Refuge in the Sunny Point/Lemon Creek/Vanderbilt region for public access and viewsheds. Placing a second crossing in this vicinity would significantly damage the visual and scenic identity of the Lemon Creek neighborhood and the whole Juneau community, as well as undermining current plans to develop recreational resources in this area. **c.** These locations represent some of the widest points of the Refuge, resulting in a significant stretch of open estuarine wetlands, uninterrupted by human development. This open viewshed is particularly unique in Southeast Alaska, where so much of our landscape is dominated by steep mountains and towering trees – only 2% of land area is comprised of tidal estuaries (Ecological Atlas of Southeast Alaska, Audubon Alaska). This iconic view is seen by visitors flying into Juneau International Airport, each tourist traveling from downtown, and, most importantly, every resident who travels on Egan Drive for work, errands, or other daily activities. Placing a large crossing structure at one of these locations would dramatically decrease the visual, cultural, and scenic identity of our community. **d.** Locating a crossing structure at one of these locations would significantly disrupt recreational uses of the Refuge. The Refuge is a unique recreational destination in Juneau, due to its flat elevation profile and open landscape, offering opportunities SEALT Comments on Juneau-Douglas North Crossing PEL Study's Level 1 Screening Page 2 of 4 unavailable at most of Juneau's parks and trails. A crossing structure would restrict access to the Refuge by creating a barrier impassable by Refuge users, as well as degrading users' ability to enjoy an undisturbed natural environment, significantly impacting the cultural identity of Juneau as a community with easy access to a diversity of outdoor recreation opportunities.	**a.** We understand that the 2008 Comprehensive Plan included the Sunny Point area of the refuge as part of the designated scenic corridor/viewshed. This designation did not continue into the 2013 update to the plan and thus our analysis as part of the Level 1 Screening labeled this area as medium in relation to the alternatives west of the airport that continued to have the scenic corridor/viewshed designation in the 2013 Comprehensive Plan. **b.** i. Thank you for your comments about the Lemon Creek Area Plan and the community's efforts for a coastal trail. We will make sure this issue is documented and addressed during the Level 2 Screening. ii. Noted - we'll make sure this is documented in Level 2 Screening **c.** Understood. We will endeavor to further evaluate the visual and community impacts of all the shortlisted alternatives as part of the Level 2 Screening. **d.** Both positive and negative impacts to recreational access that could result from each alternative will be documented in the Level 2 Screening.	K. Garrett, SEALT	5	Table 2
2	Table 3 (page 6) states that all of the alternatives are "Consistent with plans, policies, and development code." Review of this criterion should be updated to reflect that none of the alternatives within the Refuge are consistent with several key planning documents and should be marked "N." The alternatives within the Refuge are inconsistent with the following planning documents: **a.** Mendenhall Wetlands State Game Refuge Management Plan: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose. **b.** USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the as high-functioning estuarine wetland mitigation sites around Sunny Point. **c.** 2013 CBJ Comprehensive Plan: i. The alternatives located within the Refuge's boundaries are also inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states "To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards." ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damaging to the visual, cultural, and scenic identity of the community. **d.** Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.	Thanks for your comments. As we move into Level 2 Screening we will be developing more detailed versions of the shortlisted alternatives. This information will give us more data to further assess the consistency of each alternative with the requirements and protections that are in place for the refuge. At the Level 1 Screening stage, our assessment is that these alternatives could be accomplished in a manner that is consistent with these plans and that the potential impacts that are viewed as inconsistent with the plans could be mitigated.	K. Garrett, SEALT	6	Table 3
3	Table 3 (page 7) notes that all of the alternatives received "high" levels of public support, except for the Twin Lakes and Salmon Creek alternatives. Because the figures illustrating levels of public support for the different alternatives presented by the Study Team are not reflective of the email comment log that was shared with the Technical Advisory Committee, it is not possible for the Advisory Committees to determine whether this is an accurate assessment without being provided the results of the survey. When will the full survey results be shared with the Technical Advisory Committee?	The survey results will be made available to the stakeholder groups as soon as we are able to prepare the data for broader review with protections for commenter's private information.	K. Garrett, SEALT	7	Table 3
4	The narratives for each alternative screened provides statements about each alternative's impact on travel times, presumably based on the origin-destination study. This study must be made publicly available so that stakeholders and the public can understand the analysis supporting these statements.	The Origin Destination Study is currently under review and will be made available to the public when it has been finalized.	K. Garrett, SEALT		

5	Please review the Level 1 Alternative Screening Results narratives to ensure consistency across the discussions of each alternative. For example: **a.** The discussion of the Mendenhall Peninsula alternative states that this alternative would result in "adverse visual impacts associated with the construction of a road at the top or [sic], or part way up a ridge" but the discussion of none of the other alternatives discusses the adverse visual impacts of a crossing structure across the Mendenhall State Game Refuge. It is unequal to provide a concrete statement about the adverse impacts of one location (Mendenhall Peninsula) and defer to "further analysis" for the other locations (e.g., page 13, page 15, etc.). **b.** The advantages/disadvantages narratives for the West and East Sunny Point alternatives should be reviewed for consistency, given the similarities between the two alternatives. **c.** The discussion of the Twin Lakes alternative identifies the potential intersection with Egan Drive as a disadvantage of this alternative. All other locations requiring "new" intersections should either have this considered in their analysis (e.g., West and East Sunny Point), or this disadvantage for the Twin Lakes alternative should be removed.	**a.** The visual impacts of the alternatives west of the airport have a heightened sensitivity because of the designation in the 2013 Comprehensive Plan. However, our team acknowledges that all of the alternatives have the potential to impact the viewshed both in and outside the refuge. We will review the language to see if any changes need to clarify that this is a concern and that it will be evaluated during Level 2 Screening and a future NEPA process. **b.** Understood. We will review them for consistency. The primary difference between the two is that the West Sunny Point Area alternative does not directly impact the footprint of the mitigation properties. **c.** The alternatives each have a different way of tying into Egan Drive. West Sunny Point Area would tie in via a frontage road to the interchange and to the adjacent signalized intersection. Sunny Point Area would tie into the existing interchange. Vanderbilt would likely require a new interchange to replace the signal. Twin Lakes and Salmon Creek would also likely require interchanges with Egan Drive -- and these two locations are much more problematic to find the space to build these interchanges than at the other alternatives. We will review the descriptions to make sure this is clear.	K. Garrett, SEALT	8-27	Level 1 Alternatives Screening Results
6	In all reports, technical memoranda, and other materials, please note that the Southeast Alaska Land Trust's properties on the Mendenhall Peninsula, around Sunny Point, and on Hendrickson Point are wetland mitigation sites under Section 404 of the Clean Water Act, in addition to being conservation properties (e.g., pages 12 and 15). It is important for all stakeholders and decisionmakers to understand that impacts to these sites would result in significant additional regulatory complexity, time, and cost. a. In addition, these added regulatory complexities and increased costs should be noted when relevant. For example, on page 15 impacting SEALT conservation property is noted as a disadvantage of the East Sunny Point alternative and this should be expanded to state: "An alignment that meets design standards for horizontal curves will likely impact Southeast Alaska Land Trust conservation properties and wetland mitigation sites, resulting in increased costs and permitting complexity."	Thanks for the comment. We concur and will revise the language to make sure this is clearly understood.	K. Garrett, SEALT	12 & 15	East Sunny Point alternative disadvantages, bullet 2
7	Based on the appendix tables, it appears that the Level 1 screening for impacts to the hydrologic connectivity at each alternative relied on Figure 11 in the Environmental Setting Report. This figure seems to focus on streams and freshwater inputs. Screening for hydrologic connectivity should include consideration of the tidal flows through the channel, as these saltwater inputs sustain the estuarine wetlands. Are you able to re-screen each alternative in Level 1 screening with this in mind? If not, how will you be incorporating consideration of saltwater inputs into Level 2 screening?	The estuarine impacts will be evaluated in more detail during Level 2 Screening. We will develop road alignments, profiles, length of structural segments, and the slope limits of the alternatives that will enable our team to assess the hydrological needs and impacts on all fresh and marine water sources.	K. Garrett, SEALT	29 - end	Appendix, Figure 11, Step 2, Natural Environment, Hydrologic connectivity impacted
8	At the joint advisory committee meeting on Monday March 6, it seemed that each alternative had additional considerations that weren't presented in the Technical Memo. For example, the Study Team stated that there was some concern about the West Sunny Point alternative's impacts to the airport, which could be a barrier to construction at that location. How will those additional considerations be documented so that there is public validation for the findings of this study?	We will add Juneau Airport's comments and concerns regarding the West Sunny Point alternative's impacts on the airport to the memo.	K. Garrett, SEALT	8-27	Level 1 Alternatives Screening Results
9	In reports, technical memoranda, and other materials, please provide a definition of Section 4 (f) and other resources with important legal designations.	This is a required element of the NEPA process of a project. During the PEL process we will address this request in the PEL study -- at a planning level. The Section 4(f) analysis will not be completed until the NEPA process, but we will endeavor to make sure the requirements of the regulations are clear as they relate to the analysis and recommendations regarding the alternatives. The potential permits memo defines regulatory framework, approvals, and permits that the project may need in the future.	K. Garrett, SEALT	6	Table 3, Natural Environment, Use of Section 4(f)/6(f) protected lands
10	How are you going to consider indirect affects to the natural environment? For example, the degree of impact is different in different locations. A structure with the exact same size of footprint at Sunny Point and Salmon Creek would score exactly the same in your Level 2 screening criteria (as written), but would in reality have dramatically different impacts on the natural environment, Refuge, and habitat.	During the PEL process, the issue of relative impacts based on the value of the resource will be acknowledged and documented in the PEL study. We are also revising our screening criteria with a 5-point scoring system that will allow our team to better report the relative impacts/benefits of the alternatives. We would point out that this is still a planning document and we will not be conducting field investigations during the PEL process to better map the relative value of the resources. We will be limited by the data that is existing and available to our team. The intent is that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Groups, we will be able to describe the studies that will be needed during the NEPA phase to assess, map, and better understand the relative value of the resources that will be crossed by each alternative.	K. Garrett, SEALT		

11	In Level 2 screening, how will you include impacts to Refuge access points, which will affect hunting, fishing, subsistence, and recreational activities for users in the project area?	Similar to the response to the previous comment, our team will use all available resources and consultations with the regulatory and stakeholder groups to understand and document these impacts so that the picture is as clear as possible when making recommendations on alternatives to carry forward into a NEPA process. During NEPA scoping, the agencies will have formal consultations and opportunities to influence the scope of the studies that will be required to complete the environmental documentation.	K. Garrett, SEALT		
12	In Level 2 screening, how will you be taking into consideration the costs and challenges of replacement for impacts to our mitigation sites when evaluating the West and East Sunny Point alternatives? It is important that stakeholders and decision makers are made aware of the regulatory complexities, legal challenges, and significant costs associated with these alternatives. **a.** The SEALT mitigation sites provide carefully matched in-kind compensatory mitigation for impacts resulting from the Juneau airport's expansion, as outlined in that project's USACE permit. If the regulators were to approve a scheme to replace these mitigation sites, replacement mitigation sites that provide in-kind mitigation for the airport project would need to be identified and approved by both SEALT and the regulators. **b.** There are few, if any, appropriate parcels within the Mendenhall Wetlands complex that could provide similar wetland function to these special, unique, and rare aquatic sites. For this reason, offsetting the impacts to existing mitigation sites would be a major project to ensure that the permit for the Juneau airport's expansion remains compliant. The functional impacts resulting from a second bridge between Juneau and Douglas Island would then have to be permitted and mitigated separately. We are challenged to see how the costs would be calculated adequately, let alone the functional analysis and planning necessary for "double mitigation". **c.** In order for decision-makers at the municipal and state levels to make an informed choice about the alternatives, their requirements, and their expense, how are you planning to account for the time, money, and work products required for impacting SEALT's mitigation sites?	During the PEL process, we will endeavor to document the process and to characterize the complexity and range of costs that could be associated with impacts on the SEALT lands. We will not be advancing this to the point of identifying options or specific costs. Costs of impacts to wetland mitigation sites, versus impacts to unencumbered wetlands, will be magnitudes higher. Refining costs will be completed during the NEPA process if one of the recommended alternatives has direct impacts on the mitigation parcels.	K. Garrett, SEALT		
13	We recommend that the PEL Study Team familiarize themselves with the USACE permitting process and compensatory mitigation under Section 404 of the Clean Water Act in order to fully capture the costs associated with providing mitigation for a project of this scale. It is likely that compensatory mitigation will be a not-insignificant cost for a project of this magnitude and this should be reflected in the analysis of whether each alternative is feasible.	Thank you for the comment.	K. Garrett, SEALT		
14	To begin with, I feel one of the most important parts of the process has a serious flaw and this is the projected traffic study. To only consider current traffic needs and patterns for a project that is meant to allow growth for the community is unacceptable. The North and West side of Douglas Island are the logical candidates for residential, commercial, and industrial expansion. Indeed the fact that all of Juneau's' freight and most of its fuel has to be trucked through an avalanche zone and a landslide zone through the heart of town on its busiest street gives many of us pause and is a strong incentive for moving these facilities to West Douglas. With this in mind, it is premature to remove both the north of the airport alternatives.	Thank you for the comments. The economic benefits of the second crossing are part of the additional goals that are a companion to the Purpose and Need. Our team has been working with CBJ to better understand and provide data that is necessary to account for these benefits in our assessment. We acknowledge that there is an aspirational benefit and will continue to work with CBJ Planning to incorporate economic impacts into the PEL Study documentation and recommendations. A separate sub-area study is being completed by CBJ, which will assist to consider this issue in more detail as part of the Level 2 Screening. Order of Magnitude Costs of the alternatives was generated as part of the Level 1 Screening which showed the Mendenhall Peninsula Alternative and the North Airport Alternative at more than $650M and $2B, respectively. These extraordinary costs weighed in on our decision to not carry them forward to Level 2. However, in response to Advisory Committee Member concerns, we have determined that we will include the Mendenhall Peninsula alternative in the Level 2 Screening to better address the economic, cost, and other issues.	D. Hanna, Access Alaska		
15	The Salmon Creek alternative does mention that there are concerns with right of way acquisitions. It could go on to explain that this area is currently the only alternative location to bring large freight barges into and handle the freight loads. Two of the major freight distributors are located here which is also concerning. Disrupting this could have serious consequences.	We appreciate this comment and will be working during Level 2 Screening to determine if preserving freight at this location is feasible under this alternative. We understand the magnitude of this cost and if this alternative is recommended to proceed to future project development, this alternative will require an assessment of how the property owner will be compensated and the secondary impacts of how that freight will have to be accommodated elsewhere in Juneau.	D. Hanna, Access Alaska	20-22	Salmon Creek alternative disadvantages
16	The Vanderbilt location would have a direct impact on the following streams; West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek. It would also require substantial fills in the intertidal areas.	We will endeavor during Level 2 Screening to address the hydrological impacts (both freshwater and marine) of all of the alternatives advancing to detailed alternative development.	D. Hanna, Access Alaska	16-17	Vanderbilt alternative disadvantages
17	In contrast, The Sunny Point location is strategically located at the existing interchange needing little fill in the wetlands and would not impact any of the above mentioned streams. [West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek] Three of these streams are already listed as impaired waterbodies. On the Douglas Island side, the city already owns enough property that no residences need be impacted. They also own property directly across the Douglas Highway which would allow access to a future bench road.	Thanks for this comment. We will document and detail the impacts of each alternative in the PEL study.	D. Hanna, Access Alaska	12-15	Sunny Point alternatives advantages

18	The north side of the airport scored low for some puzzling reasons. A low scoring for proximity to commercial districts flies in the face of reason. Any realtor will tell you that proximity to a major thoroughfare raises the value of the property. It does not diminish it. This alternative would actually open up more industrial zoned property. Future development on West Douglas will demand quick access to the Mendenhall Valley population center. Furthermore, it is debatable as to the need for a tunnel in this location.	Thanks for this comment. The low scoring that is shown for this criterion is intended to account for the quality of life and disturbance impacts on properties that would be adjacent to a new major transportation corridor. However, we acknowledge that there is a potential economic benefit for some properties that are located along transportation corridors. We will revisit the Level 2 Screening criteria to make sure this issue is added to the next stage of the analysis.	D. Hanna, Access Alaska	10-11	North Airport alternative
19	The Mendenhall Peninsula route is another that would be ideal once North and West Douglas are developed. The pitfalls are stated that it would divide neighborhoods, be too close to residential areas and necessitate a 140' tall bridge due to the grade change. The fact is the central route would appear to avoid all existing residential as it opened up additional CBJ land for much needed housing. A perusal of google earth shows that there is adequate space to maintain a desired 6% grade down to a 40' elevation. This is a dramatic difference. In addition, I feel that the fact that this option would likely have the least impact on the Mendenhall Refuge needs more recognition.	There are a wide variety of alternatives that are conceivable at the Mendenhall Peninsula crossing. The description that we included in the Level 1 screening is just one of those options. We believe this option to be generally the most consistent with the feedback we have received from the regulatory and resource agencies. However, we acknowledge that other options could lower the profile, reduce the clearance of the bridge, and reduce the visibility of the road on the peninsula. The estimated cost range for this alternative is between $650M and $750M. Variations to the design are unlikely to have a significant impact on the cost, but as described in our response to comment 14, we have reconsidered this alternative and we will be moving it into Level 2 Screening to enable a more detailed evaluation of the issues raised by the stakeholders.	D. Hanna, Access Alaska	8-9	Mendenhall Peninsula alternative
20	For these and other reasons I request that the ranking be re-visited. In addition, I feel that none of the alternatives can be seriously considered until the issue of not considering future development is cured.	As requested, we have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2. The other alternatives previously identified to be screened out for Level 2 have not changed. To the extent that is reasonable at this planning stage, we have been and will continue to work with CBJ to quantify the north and west Douglas Island development and assess the effect on the alternatives.	D. Hanna, Access Alaska		
21	Reconsider Level 1 Step 1: Twin Lakes, Salmon Creek, Eagle Creek and Downtown do not meet proposed purpose and need. Twin Lakes and Salmon Creek should also be removed from Additional Goals Screening. Salmon Creek and Eagle Creek do not provide improved response. Twin Lakes provides redundant response.	Thank you for the thoughtful analysis of emergency response as it relates to the various alternatives. We will review your analysis and take it into consideration. Further analysis on this issue is needed during Level 2 Screening to determine the effectiveness of the Salmon Creek alternative.	I. Gallion, CBJ		
22	The stated reason for many who support a second crossing is ability to develop on the west side of Douglas Island. As a result, there may be many people and groups who are disappointed to not see the two northernmost options move forward, given that they provide the shortest route from this area to the Mendenhall Valley and hospital. If you move forward with eliminating these choices, I would suggest you better document the reasons for removal (i.e.., the infeasibility of these options). For example, providing a cost estimate of these options in the memo would provide a more compelling argument that these options are worth eliminating at this phase. Otherwise, you will have many in the community continue to hold up these alternatives as the best alternatives, which will severely hamper the ability of the community to bring this project to fruition.	We have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2. Order of Magnitude Cost estimates have been prepared and will be distributed as part of the comment responses. These costs will continue to be refined for the shortlisted alternatives during Level 2 Screening.	C. Woll, CBJ Assemblymember		
23	If you are not able to provide a bit more detail on the cost/feasibility for those two alternatives, I'd suggest moving those alternatives forward to the next stage so that you CAN provide that detail. Although I agree that these two alternatives are likely not the best routes given those feasibility concerns, I do worry that if there is still questions in people's minds about that then the project will hit political roadblocks early.	Thanks for your comment. Please see our response to Comment 22.	C. Woll, CBJ Assemblymember		
24	On a related note, my understanding is that a second crossing can only be built across the Refuge if it can be shown that other alternatives are not feasible. I'm not legal expert, but that suggests to me that providing more detail on the feasibility of the Mendenhall Peninsula option will be necessary if people want to move forward with any of the options suggested that run through the Refuge. I'm not advocating for those alternatives that run through the Refuge nor the Mendenhall Peninsula option, but instead just pointing out that more feasibility information may be helpful for the northern routes to answer important questions early.	The language in the legislation that created the refuge is clear about the rigorous evaluation and need that must be demonstrated to justify and permit a new transportation corridor across the refuge. Thank you for the comment.	C. Woll, CBJ Assemblymember		
25	I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location.	Agreed. We will clarify that both Sunny Point alternatives and the Vanderbilt alternatives have similar impacts on the hunting areas.	R. Churchwell, DFG	13	West Sunny Point Area alternative, disadvantages

26	2. Key Points •The Mendenhall Wetlands Important Bird Area provides vital stopover habitats that are limited within Southeast Alaska, most notably saltmarsh/grasslands and expansive glacial-fed tidal flats. •Fragmentation of wetlands (regardless of mitigation) diminishes habitat quality and reduces abundance and diversity of birds that inhabit or seasonally use habitats. 3. Threats/Risks •Construction degrades feeding and resting areas, especially for migratory shorebirds. •Air and habitat pollution from vehicle traffic (hydrocarbons, litter). •Light and noise pollution and disturbance. •Collisions (vehicles, bridge structural elements).	Thanks for this feedback. During the PEL process, we are striving to document the known issues and to identify potential data gaps and studies that may be needed during the NEPA phase for any alternatives that are recommended to advance beyond the PEL study. We anticipate that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Groups, we will be able to describe the existing conditions and the studies that will be needed during the NEPA phase to assess, map, and better understand wetlands, wildlife, and habitat issues that could affect the future selection of the preferred alternative.	W. Smith, Juneau Audubon Society	8-27	Level 1 Alternatives Screening Results
27	First, we must point out that the PEL team does not appear ready to complete Level 1 screening. By PEL guidelines, and your described process, key environmental values must be considered, even at this early phase. That is why PEL was created—to efficiently shape a project in light of environmental and regulatory factors early in project development. Unfortunately, the PEL team has not yet gathered or presented useful information on wildlife, habitat, and human use of the Refuge. While more detailed information will likely be needed for additional adjustments and full documentation of Level 2 screening, the agencies and the public should have at hand at least the available information documenting the magnitude and importance of refuge resources, key habitats, uses, access points, and locations BEFORE alternatives are screened for further consideration.	Thank you for your comments. We are following the adopted State of Alaska PEL Guidebook as well as best practices from other states that routinely use the PEL study process. We have gathered known sources of GPS data related to wetlands, habitat, refuge resources, access, hydrology, land ownership, etc. We have consulted in one-on-one meetings with the regulatory agencies that have jurisdiction in this area as well as all of the known stakeholders to gather their input and potential data. We have researched all of the known plans and regulations that affect this area. If you have data that could benefit our assessment or provide greater detail to support our Level 2 Screening analysis, we would greatly appreciate you providing that data.	M. Robus, Mendenhall Wetlands Study Group		
28	The draft Level 1 screening document appears to largely ignore the planning and regulatory issues outlined in the preceding two paragraphs. Table 3 (page 6) of the screening document shows that all of the alternatives rated are “consistent with plans, policies, and development code.” None of the alternatives within the Refuge are consistent with the Refuge’s management plan or with Section 4(f). They therefore should be marked (N).	Thanks for your comments. As we move into Level 2 Screening we will be developing more detailed versions of the shortlisted alternatives. This information will give us more data to further assess the consistency of each alternative with the requirements and protections that are in place for the refuge. At the Level 1 Screening stage, our assessment is that these alternatives could be accomplished in a manner that is consistent with these plans and that the potential impacts that are viewed as inconsistent with the plans could be mitigated.	M. Robus, Mendenhall Wetlands Study Group	6	Table 3
29	The DOWL presentation did raise concerns on the feasibility of the Salmon Creek crossing due to the height and distance requirements to land it at the hospital intersection. The MWSG encourages that the Level 2 analysis for this alternative include consideration of connection points from the southeast end of Channel Drive to the southern edge of the exposed Salmon Creek delta to ensure that due diligence is given to the feasibility of the crossing and to avoidance of the referenced migratory bird hotspot.	Agreed. Thank you for the comment.	M. Robus, Mendenhall Wetlands Study Group	20-22	Salmon Creek alternative
30	Our Study Group also favors keeping the Eagle Creek alternative for continued analysis. The risk of avalanche hazard should be evaluated to determine if this is a reasonable alternative. The Eagle Creek crossing site does meet the primary Purpose and Needs, and is also completely outside of the Refuge and further from the bird concentration area at the mouth of Salmon Creek, thus minimizing environmental impact and avoiding legal challenge for permitting a transportation corridor in the refuge. Analysis of this crossing option should consider moving the mainland landing site further northwest to reduce exposure to the avalanche zone.	Thank you for the comment. Our team has determined that this alternative fails to meet the purpose and need due to the marginal benefit to redundant access and the lack of improvement in emergency response. In accordance with the Level 1 Screening criteria, this alternative will not be progressing to Level 2.	M. Robus, Mendenhall Wetlands Study Group	23-24	Eagle Creek alternative
31	We believe that the impacts of the crossings within the Refuge, if included, need to be ranked in the Level 2 analysis. Currently, rankings between the cross-Refuge options are totally absent. From the standpoint of impacts to Refuge resources and users, the experts within our Study Group agree that the Sunny Point crossings have by far the greatest impact because they traverse the heart of the Refuge. Elevated routes at Vanderbilt and Twin Lakes, although crossing the Refuge, create fewer impacts to wetlands and human use. Shorebird and waterfowl uses in these areas are significant, however. The screening analysis should evaluate resource values and rank the different cross-refuge alternatives to estimate their relative impacts.	During the PEL process, the issue of relative impacts based on the value of the resource will be acknowledged and documented in the PEL study. We are also revising our screening criteria with a 5-point scoring system that will allow our team to better report the relative impacts/benefits of the alternatives. We would point out that this is still a planning document and we will not be conducting field investigations during the PEL phase to better map the relative value of the resources. We will be limited by the data that is existing and available to our team. The intent is that through our limited environmental analysis during the PEL process and through our consultation with our Technical and Stakeholder Advisory Committees, we will be able to describe the studies that will be needed during the NEPA phase to assess, map, and better understand the relative value of the resources that will be crossed by each alternative.	M. Robus, Mendenhall Wetlands Study Group		

32	We were encouraged to hear the DOWL team tell the Stakeholder and Technical Advisory Groups that if any of these three cross-Refuge options are included in the Phase 2 analysis only elevated structures will be considered. All three of these crossing options run perpendicular to the tidal flow that creates the highly diverse and productive wetlands in the Refuge. A solid fill structure at any of these locations would have substantial impacts on tidal flows and thus a large area of the Refuge. Project proposals for solid fill causeways would face legal challenges and are unlikely to be permitted and therefore should not be included in the Level 2 analyses.	Consideration of a structurally supported road to reduce the impacts of alternatives that cross the Refuge is part of our Level 2 Screening. Some fill at the ends of the crossing locations is likely and we will be able to better quantify those impacts when we create the concept drawings, road profiles, cross-sections, and slope limits. We are aware of the language that is in the Refuge legislation.	M. Robus, Mendenhall Wetlands Study Group		
33	As part of the Level 2 screening the PEL Team should develop comprehensive and geographically specific information on both habitats and fish and wildlife use of the various parts of the Refuge, particularly areas affected by potential cross-refuge structures.	We will be assessing the Level 2 Screening based on existing information, but we will identify data gaps and studies in the Final PEL Study that will be needed for assessing the alternatives that are recommended to proceed into the NEPA phase. Regulatory agencies and the public will have an opportunity to provide input on the scope of the environmental studies when the NEPA phase is initiated.	M. Robus, Mendenhall Wetlands Study Group		
34	While wetlands are important to wildlife and have their own regulatory protections, your ranking must also consider the full range of wildlife use of project area habitats, given that mudflats and resting areas are also extremely important. Such areas must be identified for Level 2 screening for both the on- and off-refuge alternatives. See the SEAL Trust 2004 habitat maps that could be updated to roughly identify key habitats such as low marsh vs high marsh, mudflats, mussel beds, open water and algal mats (https://juneaunature.discoverysoutheast.org/wp-content/uploads/2015/09/armstrong-hotspots-04.pdf).	Thank you for your comment. See response to comment 31 and 33.	M. Robus, Mendenhall Wetlands Study Group		
35	While existing bird observation data such as the “Hotspots” report noted above, as well as eBird, are focused on accessible refuge margins, they should be consulted to see where seasonal bird concentrations have been documented and where additional data are needed. Experienced observers, photographers, and hunters, including this group, can help to fill some of the information gaps early in this process, although additional information will be needed to support full consideration of crossing sites.	Thank you for the comment. See response to comments 31 and 33.	M. Robus, Mendenhall Wetlands Study Group		
36	As mentioned above, all three of the areas considered for cross-Refuge structures should have further analysis. However, the Sunny Point crossing alternatives are of particular concern. These crossings impact the largest acreage of wetlands in a highly diverse and productive area of the Refuge. They will likely alter the hydrologic regime of the wetlands and negatively impact, not only Refuge lands, but also the wetlands protected by the SEAL Trust at Sunny Point as mitigation for the wetland impacts of the recent Airport expansion. The Sunny Point area is also at the top of the public use areas on the Refuge, especially for waterfowl hunting.	Thank you for your comment. Please see response to Comments 25, 31, and 33.	M. Robus, Mendenhall Wetlands Study Group		
37	In the technical memoranda that explain the results of the draft Level 1 screening process the subject of public uses of the Mendenhall Wetlands and more specifically the MWSGR is almost completely omitted from consideration. Birding, dog-walking, photography, and other outdoor pastimes and the way that alternatives could impact them are not mentioned; the lone exception is the disclosure that the Sunny Point (east) alternative would encroach on a popular and long-standing waterfowl hunting area. However, even in that case there is no estimate of the effects of that encroachment, and it is quite likely that state or borough shotgun discharge setbacks from any of the mid-refuge crossings would severely constrain or shut down hunting in the refuge. State refuges are public use areas as well as environmental conservation areas and screening potential alternatives without consideration of the effects upon those uses ignores real differences between them. In general, the effects of a crossing will have much less impact on public uses at the eastern/southern end of the study area in more developed areas; if there was an "Effects on public uses" matrix line Salmon Creek would have a better rating than the cross-Refuge routes.	Thank you for your comments. The issue of hunting is addressed in Comment 25. We will review our description of the impacts and add more description of public uses on the alternatives.	M. Robus, Mendenhall Wetlands Study Group	8-27	Level 1 Alternatives Screening Results
38	It is premature to choose a second Mainland-Douglas Island route before a planning effort for the northern and western portions of the island is completed, and illogical to pump additional traffic onto the North Douglas Highway, which ADOT has said is incapable of safely handling increased levels of use. The North Crossing PEL process has simultaneously and explicitly excluded a North Douglas Bench Road from the project description and yet shown it on project maps because it is a critical factor in making the project work. Land use planning for future development on the island and provision of a bench road or some other approach to avoiding impacts to the North Douglas Highway should precede, not follow, implementation of a second crossing. To that end, wetland mapping for this area should include the CBJ 2014-15 wetland boundaries that are more accurate than the NWI maps, particularly for forested wetlands.	The Origin Destination study will be available for public review once completed. This document will help stakeholders understand where traffic will divert for each of the alternatives. The second crossing does not of itself generate increased traffic on North Douglas Highway and does not have a significant impact on the overall traffic volumes on North Douglas Highway. An additional crossing would change the volumes at specific locations and the travel patterns of highway users. The concept of a bench road was a common comment from the public and it has been documented with DOT&PF as the possible subject for a future study/project - with or without the construction of a second crossing.	M. Robus, Mendenhall Wetlands Study Group		

39	Finally, some have argued that impacts of Refuge crossings can be fully mitigated and thus should continue to be considered. The Mendenhall Wetlands Study Group strongly disagrees. The Refuge consists of functioning intertidal wetlands which cannot be successfully manufactured. Even if they could be, the FAA has not allowed enhancement of wetland habitats on the Refuge for fear of increasing hazards of bird strikes. Cross-Refuge route alternatives impact primarily intertidal wetlands, which in Alaska are owned by the municipalities and the State, thus there are few if any options to purchase and protect functioning intertidal wetlands as mitigation. It is important to remember that, as we illustrated in our previous comments to the PEL Study Group (see: January 30, 2023 Mendenhall Wetlands Study Group document), the Mendenhall Wetlands are a unique and rare occurrence in Southeast Alaska. They rank along with the Stikine and Yakutat Forelands in their regional and global importance to migrating birds. They also provide significant support to the other fish and wildlife of Juneau and the region. We should do all we can to make sure Juneau meets its needs for safety and expansion without destroying this critical and unique resource that is at the center of our community.	Thank you for your comments. We look forward to your continued involvement on the Stakeholder Advisory Committee.	M. Robus, Mendenhall Wetlands Study Group
40	1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing, but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future.	Thank you for your comments. We will make sure CBJ is aware of your comments.	M. Stanley, NDNA
41	2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review.	Alternatives that do not meet the purpose and need or that are determined to be infeasible or unreasonable from a cost or construction standpoint cannot be considered as alternatives and it would be inaccurate to present them as possible alternatives that could be implemented. Screening them out is the point of the Level 1 Screening process. However, in the spirit of your comment, we are revising the screening criteria for the Level 2 Screening to include a 5-point scoring system that would provide a more nuanced evaluation of the alternatives for the public and stakeholders to review. Additionally, we have revisited the rankings and we are moving the Mendenhall Peninsula alternative into Level 2.	M. Stanley, NDNA
42	3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis.	During Level 2 screening, our design team will be providing more detail on the alignment and circulation that would be included as part of the Salmon Creek alternative.	M. Stanley, NDNA
43	4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards.	Thanks for reiterating this point. Please see the response to Comment 32.	M. Stanley, NDNA
44	5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.	Thanks for your comment. Please see our response to Comment 38.	M. Stanley, NDNA

45	6. The stakeholder presentation described both Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening.	Thanks so much for your comments regarding Hendrickson Point. We will include an evaluation of impacts on this property as part of the Level 2 Screening as you have suggested. We will also document any additional studies that would be needed in this area if one of the alternatives that cross Hendrickson is recommended for continuation into NEPA.	M. Stanley, NDNA
46	The stated project purpose and need statement (Updated November 2022) of the JDNC PEL indicates the purpose of the study is to identify ways to improve the connection between Douglas Island and Juneau by constructing a second crossing. The secondary project purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. The Project's stated purpose and need statement is not specific to identified traffic concerns. In addition, the Juneau-Douglas Island population growth projections that would contribute to increased traffic have not been realized. At present, it is not clear that the need for the Project has been well substantiated. EPA recommends that the purpose and need more specifically incorporate the problem that would be addressed/solved by completing the project.	The purpose and need statement has been approved by the Statewide Environmental Office and identifies the purpose as being "to identify ways to improve the connection between Douglas Island and Juneau. The secondary purposes are to identify ways to improve transportation for non-motorized users and reduce transportation-related energy consumption." The need is two-fold to create "Alternate access and transportation infrastructure resiliency" and "Decrease traffic pressure on Douglas Island Bridge and its intersections". The traffic portion of the purpose and need is clear that it is related to traffic concerns on the bridge and its intersections. The traffic analysis demonstrates that these intersections operate at a poor level of service during peak periods under existing traffic volumes, and are not reliant on future growth.	B. McCracken, EPA
47	Based on the Appendix; Level 1 Screening Results Overview8 (page 28) under Step 2 Additional Goals, Avoid, minimize, and mitigate impacts to the environment, there are three categories: "high", "medium" and "low". A ranking of "high" means there is a high potential for the alternative to avoid impacts. While it is difficult to directly compare the aquatic resource impacts without knowing the designs of each alternative, the project ranking of "medium" was assigned (pages 29 and 37) to the Salmon Creek alternative. The other six alternatives are ranked as having "low" potential to avoid, minimize and mitigate impacts; with the no-build alternative ranking "high". EPA encourages the Project to consider and fully evaluate the Salmon Creek crossing as being the potential LEDPA alternative, while also meeting the project's stated purpose and need.	Salmon Creek alternative is one of the alternatives moving forward into Level 2 Screening.	B. McCracken, EPA
48	While the TM states that there are challenges tying in with the Egan Drive/Channel Drive Intersection, there is also opportunity to upgrade this Juneau mainland intersection to improve current conditions. As noted in the TM and the North Crossing PEL Study Environmental Setting (ES) document,9 the Salmon Creek Alternative is outside of the Mendenhall Wetlands State Game Refuge, would require the shortest crossing span, impact the least amount of wetlands (ES document, page 80, Figure 14, Wetlands in the Study Area), and least amount of documented Anadromous waters (ES document, Page 87, Figure 16; Anadromous fish habitat within the study area). Based upon information provided thus far, it also appears this alternative may require the least amount of intertidal dredge and fill impacts.	The Salmon Creek alternative is moving forward into Level 2 Screening. We will generate profiles, cross-sections, slope limits, and conceptual designs for the alternatives that are carried forward into Level 2 Screening. At that time we will have a more realistic picture of the design and the impacts that would result from this alternative.	B. McCracken, EPA
49	Fundamental to the Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems concerned.	Thank you for the comment. No dredging is anticipated as part of the alternatives, but fill material is a likely consideration and will be evaluated in accordance with state,-federal, and local regulations. Structurally supported alternatives are being considered as a means to reduce fill material in the aquatic ecosystem.	B. McCracken, EPA
50	The draft AK DMEF, User Manual, and Inland Testing Manual include a tiered approach to sediment characterization for dredging projects. More specifically, these guidance documents outline four tiers of evaluation: 1. Site Evaluation and History, 2. Chemical Testing, 3. Biological Testing, and 4. Special Studies. Every dredging project is subject to a Tier 1 evaluation to determine if enough information exists to make a decision on whether dredged sediments will be suitable for open-water disposal. The presence of an adequate baseline is part of this determination. The Tier 1 evaluation may be the only tier required for a suitability determination, or it may inform evaluation by other tiers. The tiered analysis, provides the information needed to make a factual determination as required by the Guidelines.15The need for and extent of the Tier 1 evaluation should be incorporated into the Project, depending on the alternative selected.	Thank you for the comment. We do not anticipate dredging to be part of the alternatives at this time. We will document this guidance and if dredging becomes a future consideration, we will let you know.	B. McCracken, EPA

31e. Level 2 Screening

DATE	ITEMS	PAGE
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4/10/2024	Catherine Pohl, Mendenhall Wetlands Study Group	1347
4/11/2024	Benjamin Mulligan, Alaska Department of Fish and Game	1404
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4/11/2024	Southeast Alaska Land Trust	1418
6/26/2024	Draft Level 2 Comment Response Matrix	1473
4/25/2025	Final Level 2 Comment Response Matrix	1530

From: Morgan McCammon
To: Rebecca Bellmore
Cc: Gentemann, Christy D (DOT); Heidemann, Marie E (DOT); Jovie Garcia; Lockwood, Gregory K (DOT); Morgan McCammon; Renee Whitesell; Steven Noble; Talli Vittetoe; Theresa Dutchuk; Bridget LaPenter; Denise Koch
Subject: RE: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
Date: Wednesday, March 20, 2024 10:31:09 AM
Attachments: image002.png
image003.png

Good morning, Rebecca,

Thank you for sharing your initial comments.

Morgan McCammon
Project Communications Specialist

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From: Rebecca Bellmore <rebecca@sawcak.org>
Sent: Friday, March 15, 2024 4:30 PM
To: Margaret Custer <margaret@sealt.org>
Cc: Linda Shaw - NOAA Federal; Morgan McCammon; Daugherty, Leslie K (DOT) <; ; Purves, Nathan A (DOT) Lindgren, Jesse W (DFG) < Meitl, Sarah J (DNR) Lynae Craig >; ; Spencer, Karl Daniel King Matt Robus <>; Matt Little <; Dave Hanna >; Alaska Concrete Casting gmail.com>; Heidemann, Marie E (DOT) <>; Gentemann, Christy D (DOT) <>; Lockwood, Gregory K (DOT) .gov>; Kolwaite, Douglas S (DOT) <>; Taylor, Jill A (DOT) Katie Koester <k>; Bridget LaPenter au.gov>; Irene Gallion >; Steven Noble <; Renee Whitesell <>; Jovie Garcia >; Theresa Dutchuk Ryane Gray >; Marella Gungob < Michael Horntvedt >; Mike Hall <>; Denise Koch ov>; Keller, Nina (DOT) <r
Subject: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Hi Morgan,

Please see below for our initial comments on the PEL level 2 draft scoring (letter also attached).

Thanks,

Rebecca Bellmore

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

Issue 1. Environmental Data Accuracy and Completeness for Impact Assessment

The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
- Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)
- Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.
- Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?

Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

Issue 2. Level 2 Score Weighting

With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

- PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.)
- North Douglas Connection
- Environmental impacts
- Safety (include airport, Coast Guard)
- Residential impacts

- Visual, cultural, scenic identity
- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
- Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves)
- Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties)
- Social impacts (add recreation impacts)
- Cost
- Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)

Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.

Issue 3. Negative scoring on No Build Alternative, and zero scoring on impacts.

The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

Rebecca Bellmore
Science Director
Southeast Alaska Watershed Coalition
[redacted]
www.alaskawatershedcoalition.org

On Thu, Mar 14, 2024 at 12:41 PM Margaret Custer <[redacted]> wrote:

> Hello Morgan and team,
>
> I would like to request that the Technical and Stakeholder Advisory Committees be provided at least two additional weeks to review and comment on the large volume of materials shared with us. A three-week deadline to provide meaningful feedback on hundreds of pages of detailed reports and scoring tables is just not enough.
>
> The PEL Study timeline has been extended multiple times to accommodate DOWL's needs such that we have now entered year 3 of the study, and it would be appropriate to extend it just once for the advisory committees. Can the deadline for comments from the TAC & SAC be extended until April 11 at the earliest, or ideally April 25, so that the agencies and stakeholders have adequate time to provide the advice that has been requested?
>
> Thank you,
>
> Margaret Custer, Executive Director
> [redacted]
> We live and work on Lingít Aaní. We strive to be consistent with and supportive of the stewardship of these lands by the Indigenous people of the region, recognizing that they have long cared for these lands and their living resources. Aatlein gunalchéesh.

On Tue, Mar 5, 2024 at 8:02 AM Linda Shaw - NOAA Federal [redacted] > wrote:

> Hi Morgan and all,
>
> I just became aware of this mapping data source for coastal resilience and fish and wildlife resources called the Coastal Resilience Evaluation and Siting Tool (CREST), that includes layers for the area of the Juneau Douglas Second Crossing as another source of information for evaluating the project.
>
> Here is the link.
>
> https://resilientcoasts.org/#Home
>
> There is an Alaska tab to navigate to Juneau-Douglas and additional information on the data layers.
>
> Linda
>
> **Linda Shaw (she | her)**
> *Wildlife Biologist, Alaska Region*
> NOAA Fisheries | U.S. Department of Commerce
> [redacted]
> https://www.fisheries.noaa.gov/region/alaska

On Fri, Mar 1, 2024 at 4:35 PM Morgan McCammon <[redacted]> wrote:

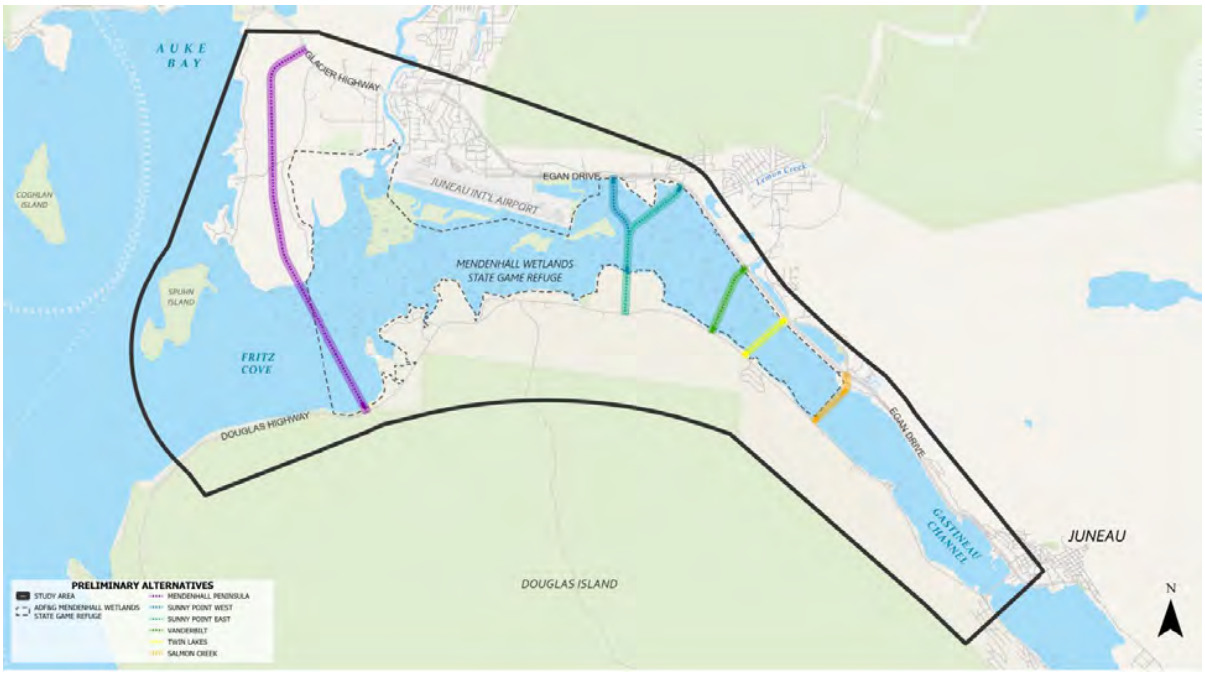
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

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From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: [redacted] Irene Gallion <[redacted]>; Steven Noble [redacted]>; Renee Whitesell [redacted]>; Jovie Garcia [redacted] Theresa Dutchuk [redacted]; Ryane Gray [redacted]>; Marella Gungob [redacted]>; [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]
dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To: [redacted]; Lindgren, Jesse W (DFG) <[redacted] Meitl, Sarah J (DNR) [redacted]>; Lynae Craig [redacted];

[redacted], Spencer, Kari [redacted]; [redacted] 'Daniel King' <[redacted]; Matt Robus [redacted]>; Matt Little [redacted]>; Dave Hanna [redacted]; Alaska Concrete Casting [redacted] >

Cc: [redacted]; Irene Gallion [redacted]>; Steven Noble [redacted]; Renee Whitesell [redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted] Ryane Gray [redacted] Marella Gungob [redacted] Morgan McCammon [redacted]

Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon
Public Involvement Specialist

DOWL

[redacted]

dowl.com

March 15, 2024

Re: PEL Level 2 Draft Scoring

Dear Ms. McCammon and DOWL Juneau-Douglas North Crossing PEL Team,

Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores.

We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).

Issue 1. Environmental Data Accuracy and Completeness for Impact Assessment

The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.

Areas that should be revisited (at a minimum)

- Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.
- Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.
- SEALT mitigation property impacts – ensure these are accurate.
- Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)
- Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.
- Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of

migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?

Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.

Issue 2. Level 2 Score Weighting

With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2.

We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.

Potential categories for consideration:

- PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.)
- North Douglas Connection
- Environmental impacts
- Safety (include airport, Coast Guard)
- Residential impacts
- Visual, cultural, scenic identity
- 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves)
- Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves)
- Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties)
- Social impacts (add recreation impacts)
- Cost
- Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)

Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.

Issue 3. Negative scoring on No Build Alternative, and zero scoring on impacts.

The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming

lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system.

In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.

Need for additional public facing data/information

A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.

Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).

Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.

Please share all comments submitted by members of the Advisory Committees and the public.

Sincerely,

Rebecca Bellmore

Science Director, Southeast Alaska Watershed Coalition

PEL Stakeholder Advisory Committee member

From: Morgan McCammon
To: Michael Stanley; PUB-JDNorthCrossing
Cc: [redacted]
Subject: RE: [EXT] NDNA Comments on Level II Screening Results
Date: Wednesday, April 3, 2024 3:32:20 PM

Good afternoon, Mr. Stanley,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Michael Stanley <[redacted]
Sent: Wednesday, April 3, 2024 8:49 AM
To: Morgan McCammon [redacted]; PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>
Cc: e[redacted]
Subject: [EXT] NDNA Comments on Level II Screening Results

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Dear Ms. McCammon and JD North Crossing Study Team,

Attached please find the comments of the North Douglas Neighborhood Association on the PEL Level II screening results and scoring tables. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you.

Mike Stanley
Chair, Second Crossing Committee
NDNA

NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION
P.O. Box 240303, Douglas Alaska 99824
www.northdouglasneighborhoodassociation.com

COMMENT ON PEL LEVEL II SCREENING RESULTS

The North Douglas Neighborhood Association (NDNA) and its Second Crossing Committee submit the following comments on the PEL Level II Screening Results, reflected in the draft scoring tables that were released by DOWL on March 1 and presented to the PEL stakeholder advisory and technical committees on March 7. NDNA representatives attended the stakeholder meeting and also participated in a subsequent discussion with members of the PEL study team as a follow-up to questions raised at that meeting. A second crossing from the mainland to Douglas Island, north of the existing bridge, will transform and have lasting impacts on our neighborhood, and we appreciate the efforts by DOWL to involve NDNA in the process.

I. General Statement

The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward.

The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.

We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.

We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.

II. Specific Concerns

The comments in this section generally track the criteria as outlined in the Level II screening results overview.

A. Purpose and Need

As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.

Salmon Creek scores +1 point for transportation infrastructure resilience whereas the other options all score +2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.

All of the alternatives score equally for decreasing traffic on the existing bridge, at +1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.

Twin Lakes and Salmon Creek score +1 for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure..." Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.

B. Additional Goals

All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.

The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 – meaning no adverse impacts – which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.

C. Environmental Considerations

Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to "directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing – including air and noise pollution – were among those considered in the evaluation of crossing locations.

Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.

All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the

alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.

The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.

D. Social Considerations

The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.

One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.

E. Housing and Economic Considerations

These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.

F. Safety

The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.

More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.

The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road:

> [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose.

The Level II screening analysis failed to pay heed to this request.

G. Right of Way

The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.

H. Public Support

The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory

committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a formal survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.

III. Conclusion

NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas – much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau – but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.

We appreciate the opportunity to comment on the Level II screening results and look forward to remaining involved in the consideration of a crossing project.

Date: April 2, 2024

Ellen Ferguson, President
North Douglas Neighborhood Association

Mike Stanley, Chair
NDNA Second Crossing Committee

From: Molly Zaleski - NOAA Federal
To: Theresa Dutchuk
Cc: Morgan McCammon; Linda Shaw - NOAA Federal; Gentemann, Christy D (DOT)
Subject: Re: [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
Date: Wednesday, April 3, 2024 3:54:26 PM
Attachments: image001.png
image003.png

Thanks for that clarification, Theresa. I think the crossed communication was it's good to include EFH but it needed to be amended to reflect the whole area of EFH and not the misleading fragmentation. Thanks for including EFH in the narrative, and feel free to request a review of any text from either of us over here to make sure it's being communicated well.

~ Molly

On Wed, Apr 3, 2024 at 3:35 PM Theresa Dutchuk <[redacted]> wrote:

> Hi Molly,
>
> This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening anyhow per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study.
>
> I hope that my misunderstanding about the mapper don't lead you to think that we didn't understand your overall messages. We valued you and Linda taking time to discuss the issues with us.
>
> Apologies for the confusion.
>
> Theresa
>
> **Theresa Dutchuk**
> Senior NEPA Specialist
>
> DOWL
> [redacted]
> *dowl.com*
>
> ---
>
> **From:** Molly Zaleski - NOAA Federal [redacted] >
> **Sent:** Wednesday, April 3, 2024 2:55 PM
> **To:** Morgan McCammon [redacted] >
> **Cc:** Linda Shaw - NOAA Federal [redacted] ; Theresa Dutchuk [redacted] >; Gentemann, Christy D (DOT) <[redacted] >
> **Subject:** [EXT] Re: JDNC Joint Advisory Committee Meetings No. 5
>
> WARNING: *External Sender - use caution when clicking links and opening attachments.*
>
> Thanks, Morgan.
>
> I just got around to looking at the mapping tool and noticed the layer prepared for EFH. After our discussion, I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel).
>
> I hope this helps when updating the EFH layer in this public-facing mapping tool. Let me know if you have any questions.
>
> ~ Molly
>
> On Tue, Apr 2, 2024 at 10:43 AM Morgan McCammon <[redacted] wrote:
>
> > Good morning, Juneau Douglas North Crossing PEL Study Advisory Committee Members,
> >
> > We have received requests for access to the GIS information used in the draft level 2 screening evaluation. To assist in your review of the level 2 screening, we have created a GIS web mapper. This GIS mapping can be found here: Juneau Douglas North Crossing Level 2 Screening (dowl.com). As a reminder, we are requesting comments on the level 2 screening preliminary impact table and scoring tables (attached) by **April 11, 2024**.
> >
> > A link to the mapper will also be made publicly available on the website https://www.jdnorthcrossing.com/.
> >
> > Thank you,
> >
> > **Morgan McCammon**
> > Project Communications Specialist
> >
> > DOWL
> > [redacted]
> > *dowl.com*
> >
> > ---
> >
> > **From:** Morgan McCammon <[redacted]
> > **Sent:** Monday, March 18, 2024 3:34 PM
> > **Cc:** Heidemann, Marie E (DOT) <[redacted] ; Gentemann, Christy D (DOT) <[redacted] >; Lockwood, Gregory K (DOT) [redacted] >; Kolwaite, Douglas S (DOT) <[redacted] ; Taylor, Jill A (DOT) [redacted] >; Katie Koester [redacted] ; Bridget LaPenter [redacted] ; Irene Gallion [redacted] ; Steven Noble <[redacted] m>; Renee Whitesell <[redacted] >; Jovie Garcia [redacted] ; Theresa Dutchuk [redacted] >; Ryane Gray [redacted] >; Marella Gungob [redacted] >; Michael Horntvedt [redacted] >; Mike Hall [redacted] >; Denise Koch [redacted] >; Keller, Nina (DOT) [redacted] >; Morgan McCammon [redacted] >
> > **Subject:** RE: JDNC Joint Advisory Committee Meetings No. 5
> >
> > Good afternoon, Juneau Douglas North Crossing PEL Study Advisory Committee Members,

Thank you for participating in the advisory committee; we appreciate the diverse perspectives you provide. Due to several requests for additional review time, we are extending the deadline for comments on the level 2 screening preliminary impact table and scoring tables (attached) to **April 11, 2024**. After that, we will evaluate and incorporate necessary changes to finalize the level 2 screening and prepare the draft PEL Study Report.

Thank you,

Morgan McCammon
Project Communications Specialist

DOWL
[redacted]
dowl.com

From: Morgan McCammon
Sent: Friday, March 1, 2024 4:34 PM
To: [redacted] Lindgren, Jesse W (DFG) [redacted]; Merrl, Sarah J (DNR) [redacted]; Lynae Craig [redacted] Spencer, Kari [redacted] Daniel King [redacted] Matt Robus [redacted]; Matt Little [redacted]; Dave Hanna [redacted]; Alaska Concrete Casting [redacted]
Cc: [redacted] Irene Gallion [redacted]; Steven Noble [redacted]; Renee Whitesel [redacted] Jovie Garcia [redacted] Theresa Dutchuk [redacted]; Ryane Gray [redacted]; Marella Gungob [redacted]
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

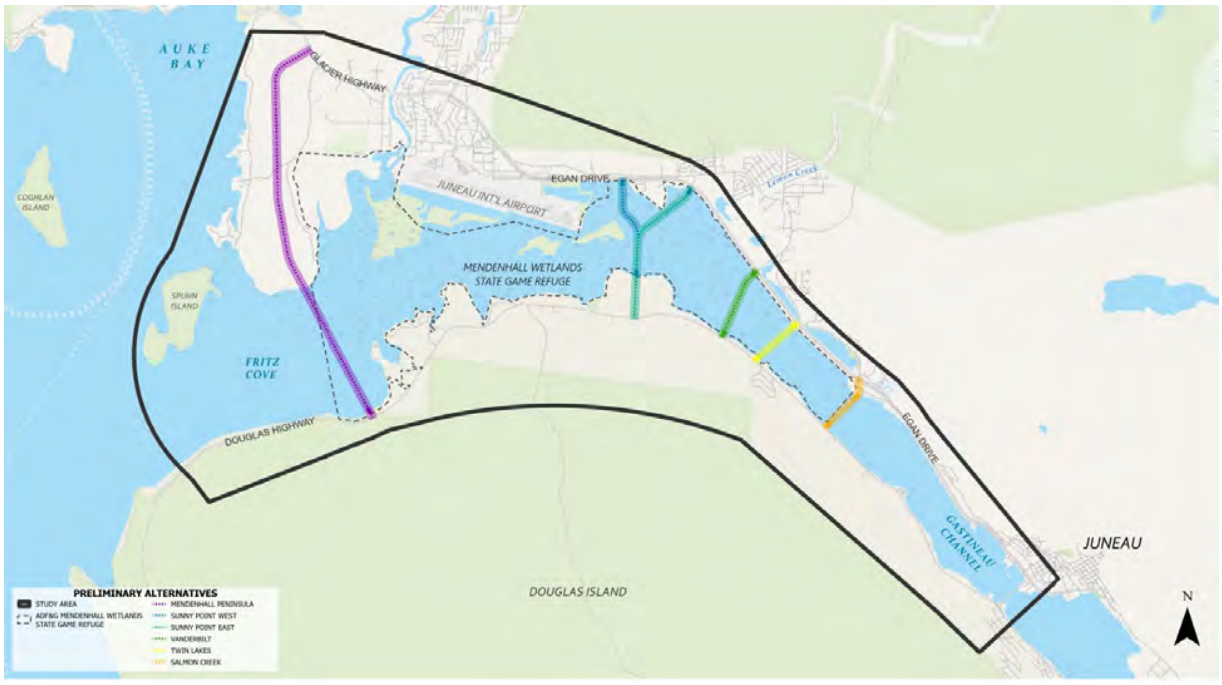
Good afternoon, Advisory Committee Members,

Please see attached:

- Level 2 Draft Screening Results
- Level 2 Draft Impact Quantification Table

We will discuss this draft screening as part of our Advisory Committee meetings next Thursday, March 7th. We look forward to your input. Please RSVP to the Outlook Calendar invitations to let us know if you plan to attend these meetings, and whether you will be attending in person or virtually.

The figure below shows the alternatives evaluated in the Level 2 screening. We will present more detailed information on the alternatives during next week's meetings.



Thank you,

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Friday, February 16, 2024 4:10 PM
Cc: [redacted] Irene Gallion [redacted]; Steven Noble [redacted]; Renee Whitesell [redacted]>; Jovie Garcia [redacted]; Theresa Dutchuk [redacted]>; Ryane Gray [redacted]>; Marella Gungob [redacted]>
Subject: RE: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon, Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. We have made the tough decision to postpone the February 21 Joint Advisory Committee meetings to provide additional time to further analyze the level 2 screening preliminary results. The meetings will now be scheduled for Thursday, March 7, 2024:

- 1:00-3:00 p.m. via Zoom
- 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road

Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation, separate emails to follow. The presentation will include a summary of the 2023 fieldwork and the preliminary results of the Level 2 Screening. We will provide the Level 2 screening following the meeting for your review and include a comment period. We have completed the reports for the limited fieldwork completed last fall. The reports are too large to include in the email so please review them on the project website Documents Page or at https://www.jdnorthcrossing.com//documents.html.

Thank you in advance for your patience, and we look forward to meeting with you.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

dowl.com

From: Morgan McCammon
Sent: Wednesday, January 31, 2024 4:18 PM
To: [redacted]; Lindgren, Jesse W (DFG) [redacted]>; Meitl, Sarah J (DNR) [redacted]>; Lynae Craig [redacted] Spencer, Karl [redacted] Daniel King [redacted]>; Matt Robus [redacted]>; Matt Little [redacted]>; Dave Hanna [redacted]; Alaska Concrete Casting [redacted]>
Cc: [redacted] rene Gallion [redacted]>; Steven Noble [redacted]m>; Renee Whitesell [redacted]>; Jovie Garcia [redacted]>; Theresa Dutchuk [redacted]>; Ryane Gray [redacted]>; Marella Gungob [redacted]>; Morgan McCammon [redacted]
Subject: JDNC Joint Advisory Committee Meetings No. 5

Good afternoon Advisory Committee Members,

Thank you for your continued involvement in the Juneau Douglas North Crossing PEL Study Advisory Committees. Your comments and participation have been valuable to the study team in shaping the evaluations in this PEL study. Our next committee meetings are scheduled for Wednesday, February 21, 2024, 1:00-3:00 p.m. via Zoom, or 4:00-6:00 p.m. at The Huddle Juneau, 9109 Mendenhall Mall Road. Please choose the time and meeting format you prefer (virtual or in-person) and accept that meeting invitation. The study team plans to present the same information at each meeting, provide an update on activities since the meeting in September 2023, listen to advisory committee member comments, and answer questions.

At the last meeting, we shared work plans for some limited fieldwork to gather additional data that informed the alternative screening and detailed alternative development and evaluation. The fieldwork included wetland delineation and functional assessment, Eelgrass survey, intertidal habitat mapping, and migratory bird survey and upland bird habitat mapping. We will share the results of this fieldwork at these meetings. In addition, the study team is currently conducting geophysical surveys and a visual analysis, and we will share an update on these.

The studies provided additional data to support the draft level 2 alternative screening. We will share the preliminary draft results of the level 2 alternative screening at this meeting. The level 2 alternative screening will provide a foundation for the future National Environmental Policy Act (NEPA) environmental documentation process that will be required for any north crossing alternative(s) recommended from the PEL study.

We look forward to meeting with you. An agenda and additional documents will be sent prior to the meeting. Please send contact information for an alternate representative if you are unable to attend one of the meetings.

Best regards,

Morgan McCammon

Public Involvement Specialist

DOWL

[redacted]

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--

Molly Zaleski
(she/her)
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Victim Advocate Liaison, WVPR

50 Years of Science, Service, and Stewardship

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From: Morgan McCammon
To: Matt Robus
Cc: Frank Rue; Alex Wertheimet; Bob Armstrong; Bruce Baker; Catherine Pohl; Dan Teske; Dave Gaudet; Deb Rudis; Diane Mayer; Doug Larsen; Jay Nelson; Laurie Craig; Michael Stanley; Neil Stichert; Richard Carstensen; Ron Somerville; Ryan Scott; Schumacher, Tom V (DFG); Steve Peterson; Wright, Brenda; Margaret Custer; Keller, Nina (DOT); Heidemann, Marie E (DOT); Gentemann, Christy D (DOT); Lockwood, Gregory K (DOT); Kolwaite, Douglas S (DOT); Taylor, Jill A (DOT); Katie Koester; Bridget LaPenter; Irene Gallion; Steven Noble; Renee Whitesell; Jovie Garcia; Theresa Dutchuk; Ryane Gray; Marella Gungob; Michael Horntvedt; Mike Hall; Denise Koch; Morgan McCammon
Subject: RE: [EXT] Mendenhall Wetlands Study Group comments on PEL Level 2 screening
Date: Wednesday, April 10, 2024 1:41:33 PM

Good afternoon, Matt and Mendenhall Wetlands Study Group members,

Thank you for providing comments.

Morgan McCammon
Project Communications Specialist

DOWL

[redacted]

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From: Matt Robus <[redacted]>
Sent: Wednesday, April 10, 2024 12:45 PM
To: Morgan McCammon <mmccammon@dowl.com>
Cc: Frank Rue [redacted]; Alex Wertheimet [redacted]>; Bob Armstrong [redacted]>; Bruce Baker <[redacted]>; Catherine Pohl <[redacted]; Dan Teske [redacted]>; Dave Gaudet <[redacted]>; Deb Rudis <[redacted]>; Diane Mayer [redacted] Doug Larsen [redacted]>; Jay Nelson [redacted]; Laurie Craig [redacted]; Michael Stanley <[redacted]; Neil Stichert [redacted] Richard Carstensen [redacted]>; Ron Somerville [redacted]>; Ryan Scott <[redacted]>; Schumacher, Tom V (DFG) [redacted] Steve Peterson <sp[redacted]m>; Wright, Brenda [redacted]>; Margaret Custer <[redacted] Keller, Nina (DOT) [redacted]>; Heidemann, Marie E (DOT) [redacted]>; Gentemann, Christy D (DOT) [redacted]>; Lockwood, Gregory K (DOT) [redacted]>; Kolwaite, Douglas S (DOT) [redacted] Taylor, Jill A (DOT) [redacted]; Katie Koester [redacted]>; Bridget LaPenter [redacted]>; Irene Gallion <[redacted]>; Steven Noble [redacted]; Renee Whitesell [redacted] Jovie Garcia [redacted] Theresa Dutchuk [redacted]>; Ryane Gray [redacted]>; Marella Gungob [redacted]>; Michael Horntvedt [redacted]>; Mike Hall [redacted]>; Denise Koch <[redacted]>
Subject: [EXT] Mendenhall Wetlands Study Group comments on PEL Level 2 screening

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Good afternoon, Morgan,

On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate.

Thank you for the opportunity to comment.

Matt Robus

Mendenhall Wetlands Study Group

Comments on the Level 2 Screening Results

for the

Juneau Douglas North Crossing PEL Study

April 10, 2024

Executive Summary

This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative.

Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation.

Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse.

The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge.

The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while deferring a rigorous analysis of anticipated environmental impacts to the NEPA process.

The Study Group agrees with DOWL's public statements that if a crossing is built, it should be a piling-supported rather than a solid-fill structure.

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Attachment 1 (MWSG Comments, January 30, 2023).....(Following Page 29)

Introduction

Study Group Qualifications

The Mendenhall Wetlands Study Group (MWSG) is a group of scientists and resource managers that was formed to provide review and expert advice to the PEL Study. The ad-hoc steering committee for the MWSG is composed of a former Alaska Department of Fish and Game (ADF&G) Commissioner, a former ADF&G Deputy Commissioner, a former ADF&G Director of Wildlife Conservation, and a former NOAA Fishery Research Biologist with forty years of experience in the study and management of Alaska salmon. The larger group is composed mainly of Fisheries Biologists, Wildlife Biologists, Conservation Biologists, Habitat Biologists, Habitat Mapping and Evaluation Specialists, Naturalists, and Natural Resource Managers. Many of the studies referenced in our January 30, 2023 Comments and Recommendations (Attachment 1) were conducted and written by members of our study group.

Mendenhall Wetlands State Game Refuge

We continue to stress the fact that the Mendenhall Wetlands constitute a uniquely productive and diverse ecosystem. Because of its 24-foot extreme tidal range and the variety of freshwater and glacial inputs, it contains diverse and complex habitats used by a wide variety of species. For example, 256 species of birds have been observed on the Wetlands. Further, the Wetlands have been recognized as a Globally Important Bird Area, a status achieved by habitats that support more than 1% of a species globally; the Mendenhall Wetlands IBA supports more than 1% of the international populations of 34 different species of birds. The Mendenhall Wetlands rank along with the Stikine Flats and the Yakutat Forelands as the most significant stopover points for shorebirds to rest and refuel on their long migrations through the region. Identified in the Alaska Shorebird Conservation Plan Vol. III (Alaska Shorebird Working Group, 2019) as a state and regional priority for habitat protection and management, the Mendenhall wetlands area hosts 16 of the 17 shorebird species of greatest conservation concern in Alaska and 11 more identified as stewardship priorities due to Alaska's share of the population. Alaska Shorebird Plan (VII) conservation priority species are adopted by reference and listed among Species of Greatest Conservation Need in the State of Alaska's 2015 Wildlife Action Plan.

International travelers using the area include Snow Geese from Russia and Greater Yellowlegs from Tierra Del Fuego among many others. Alaskan long distance migrants include many of the Mallards seen wintering on the Wetlands which travel to nest on the Yukon Delta. The Wetlands also provide a key wintering area for a large portion of the region's distinctive forest-nesting

goose population (Vancouver Canada Goose), with up to 700 using the Refuge's key salt marsh and slough habitats, including the proposed Sunny Point and Vanderbilt Creek alignments.

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates, and some mammals on the Juneau road system. Our January 30, 2023 comments included an extensive bibliography documenting the bird, fish, invertebrate, and wildlife resources on the Wetlands; it does not appear that this information was used in the PEL study. We again recommend it be used by DOWL and ADOT&PF in future analyses documenting the impacts of different crossing alternatives.

In recognition of these values and the need to conserve them, the Mendenhall Wetlands State Game Refuge (encompassing most, but not all of the Mendenhall Wetlands) was created in 1976, after more than a decade of citizen involvement. State and federal legislation require development projects within such special areas to take all measures to avoid, but also to minimize and mitigate effects upon refuge resources and uses.

As per state statutory responsibility , conditions for permitting should be specified to meet standards consistent with protection of fish and wildlife ,public use and resource use, with no adverse effect on fish and wildlife , their habitat , or public use as per 5AAC 95.430, as well as mitigation in accordance with 5AAC 95.430 and 5AAC 95.520. Nowhere in the planning has this been clear depicted or defined. Criteria enumerating and describing how the project will avoid, minimize, and mitigate impacts as per state statutes needs to be added and clearly defined.

Off-Refuge Crossing Priority

Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF **must** select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives.

Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive

areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.

Reference Actual Time Savings of All Alternatives

The Purpose and Need criterion of "Improving travel times" should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ's highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives.

The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF's travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.

Crossing Structures Limited to Elevated Structures

We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.

Re-scoring the DOWL Matrix

DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels.

First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.

Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.

Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).

The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and

viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.

The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.

1. Purpose and Needs:

Criterion: "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"

DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).

Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.

The alternatives should be re-scored to reflect the gradient of impact:
Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.

Scores for "Decrease Congestion Douglas Island Bridge/Intersections"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	+1	+1	+1	+1	+1	+1
MWSG	-1	0	0	+1	+2	+2

2. Additional Goals:

Criterion: "Avoid, minimize, and mitigate impacts to the environment"

DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.

A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key "environmental linkages" – the purpose of the Planning and Environmental Linkages (PEL) process.

Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).

Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL's choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek.

The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.

Scores for "Avoid, minimize, and mitigate impacts to the environment."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-2	-2	-2	-2
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: <u>"Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island"</u>

DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau's

Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.

Scores for "Maintain the visual, cultural, and scenic identity."
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-1.5	-1.5	-1

3. Environmental Screening

Criterion: "Wetlands directly impacted"

DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for "impervious surfaces added", but is an incomplete description of the structures' impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.

Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL's acreage tally. DOWL's recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion

was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.

Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.

The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary.

Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.

Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.

Scores for "Wetlands Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-2	-1	-2	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Intertidal zone directly impacted"

DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.

According to communications from the PEL team the wetland acreages were being tallied for all "wetlands and waters" jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL's acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected.

Scores for "Intertidal Zone Directly Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	-1	-1	-2	-2	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "EFH (Essential Fish Habitat) Directly Affected"

As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion "Fish Habitat Affected". We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.

Scores for " Fish Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-1	0	0	-2	-2	-1
MWSG	-1	-2	-2	-2	-2	-1

Criterion: " Wildlife habitat directly impacted"

This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.

Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.

Scores for " Wildlife Habitat Impacted"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	0	-2	-1	0
MWSG	-2	-2	-2	-2	-1	-1

Criterion: "Important migratory bird habitat directly impacted"

Bird Habitat Impact Criteria & Rating Issues

Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.

DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly

nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.

The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.

eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.

We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations.

In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.

Sunny Point East and West

SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.

Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.

The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.

The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.

The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.

Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent

undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.

Mendenhall Peninsula

The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, *Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003* (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.

The Mendenhall Peninsula crossing alternative runs through the top bird "hotspot" at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as "first tier" for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these "first tier hotspots," representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).

Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge's "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The "Hotspots" authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two "second tier hotspots," the channels, rockweed beds, and tideflats

extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of “seasonal hotspot” f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.

Salmon Creek

The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 “top tier” refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).

On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.

Twin Lakes

Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting

season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt ("Pioneer") marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a "nearby hotspot" in the Hotspots report, important as a "refuge from the refuge" and for wildlife viewing (Armstrong et al., 2004).

The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a "second tier hotspot" and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.

Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.

Salmon Creek

The Twin and Vanderbilt impact areas overlap at Vanderbilt (or "Pioneer") marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered "nearby hotspots" (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.

The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt ("Pioneer") marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek's glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a

large tidal "island." Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a "refuge within the refuge" for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal "island."

The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).

We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area's role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.

In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.

References: Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003, Juneau Audubon Society and Taku Conservation Society, 2004. Juneau, AK.

eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: http://www.ebird.org.

Alaska Shorebird Group. 2019. Alaska Shorebird Conservation Plan. Version III. Alaska Shorebird Group, Anchorage, AK.

Scores for "Important Migratory Bird Habitat Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	-2	0	-1	-1	-1
MWSG	-2	-2	-2	-2	-1.5	-1

Criterion: "Section 4(f)/6(f) resources affected"

DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative.

Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.

Scores for "Section 4(f)/6(f) resources affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-2	-1	-1	-1	-1	-1
MWSG	-2	-2	-2	-2	-2	-1

Criterion: "Protected lands directly affected"

DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.

In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.

In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.

When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.

Scores for "Protected lands directly affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	-2	0	0	0
MWSG	-2	-2	-2	-1.5	-1	-0.5

Criterion: "Social"

This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.

DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.

ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.

The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.

Scores for "Social: Community Affected"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	-1	0	-1
MWSG	-1	-2	-2	-1	-1	-1

Criterion: "Cost: Estimated Total Construction"

Because construction cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives at 0. DOWL has now provided estimated construction costs, and we have scored them to consider them in the ranking process.

DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.

MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.

Scores for "Estimated Total Construction Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	0	0	+2	+1	+1

Criterion: Cost: "Estimated Annual Maintenance"

Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.

Scores for "Estimated Annual Maintenance Costs"
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	0	0	0	0	0	0
MWSG	-2	-1	-1	+1	+2	+2

Summary of Scores

The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative.

Summary Table: Cumulative Scores for All Criteria
By Alternative

Scoring	MP	WSP	ESP	VB	TL	SC
DOWL	-11	-8	-3	-10	-6	-14
MWSG	-23	–20	-17	-11	-6	-10.5

MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity:

Lowest Impacts	Twin Lakes	-6
	Salmon Creek	-10.5
↕	Vanderbilt	–11
	East Sunny Point	-17
	West Sunny Point	-20
Highest Impacts	Mendenhall Peninsula	-23

A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.

Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives.

The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.

The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.

If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.

The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: "1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation." The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis.

The National Transportation Act of 1966 provides instruction under Section 4(f):

"The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. **After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.**"

If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats.

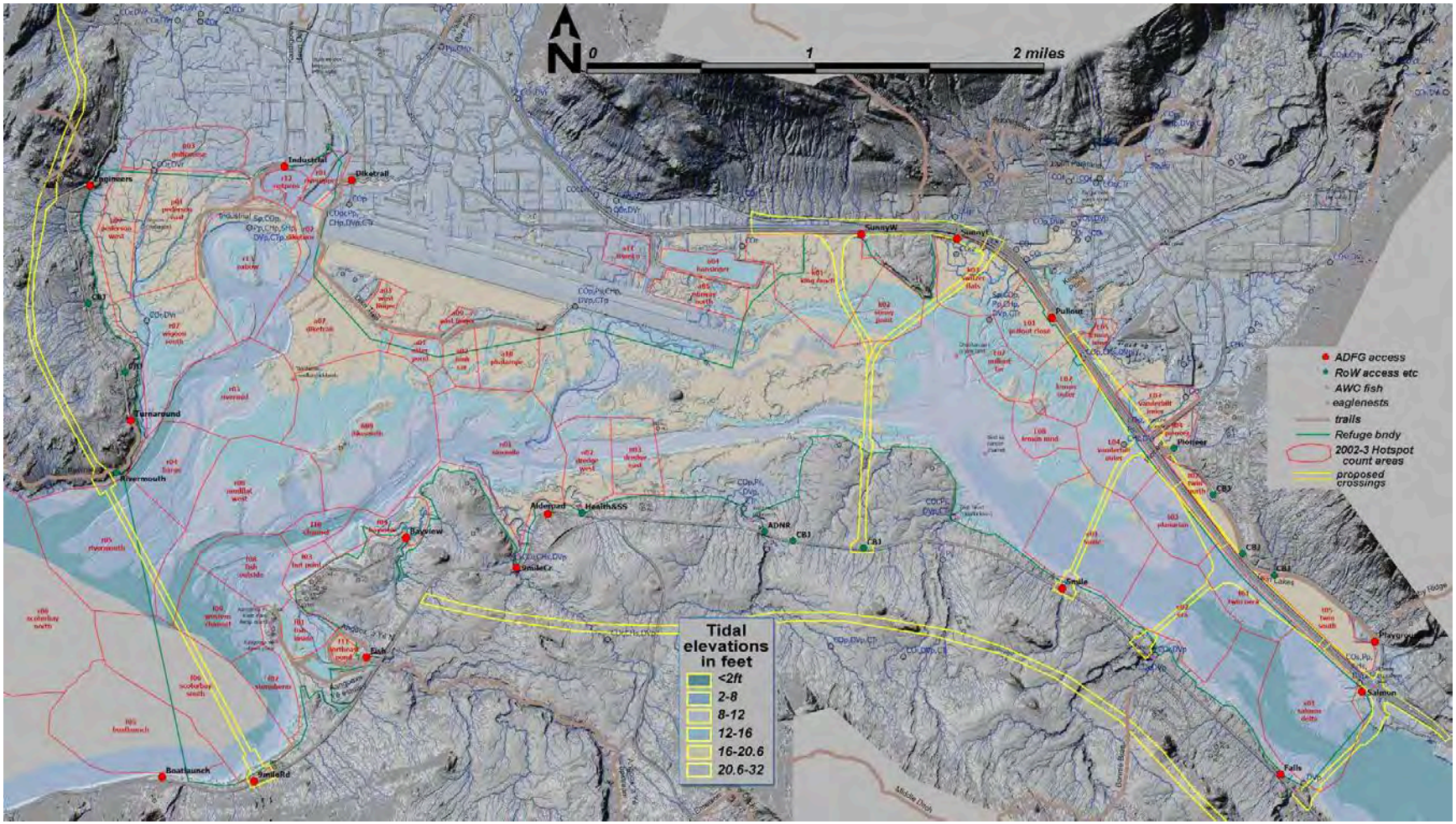
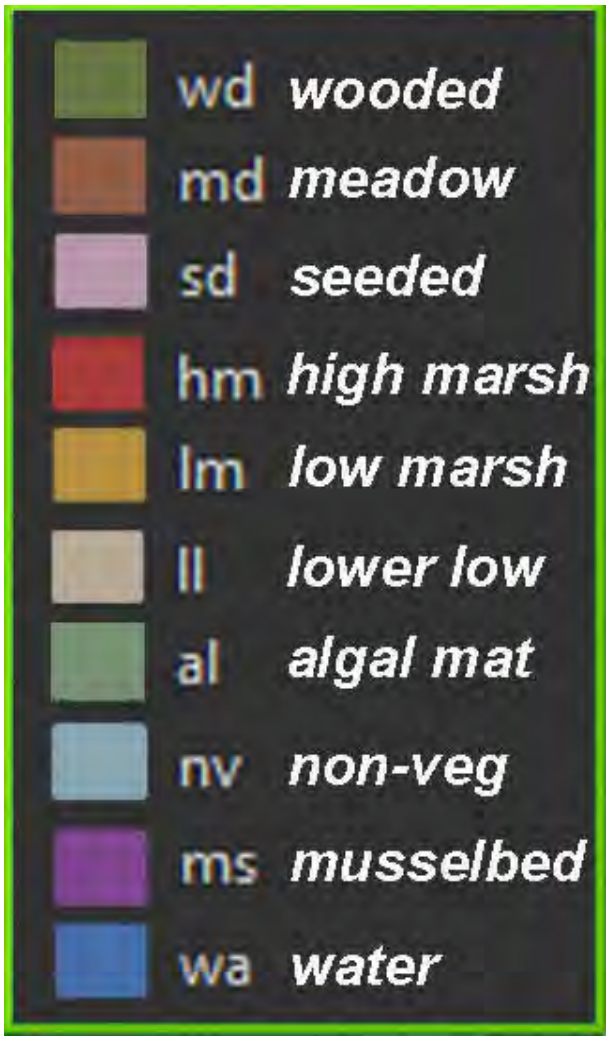
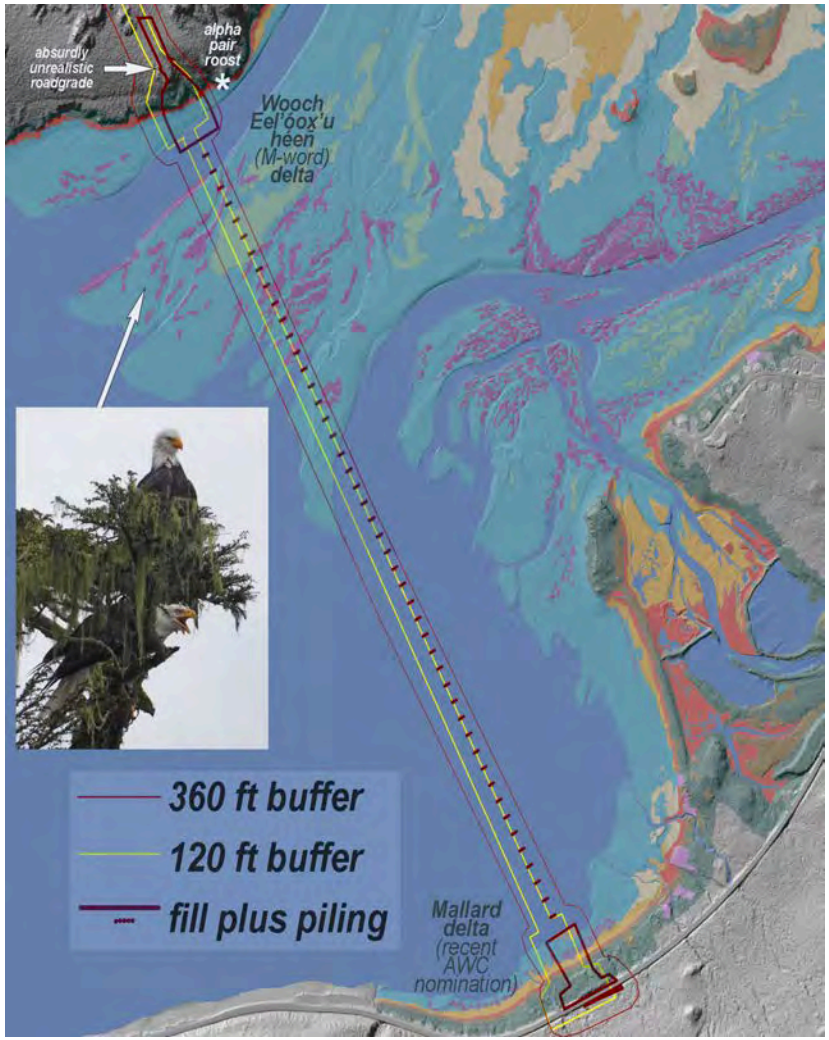

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Tidal elevations in feet
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20.6-32
Industrial
Diketrail
Engineers
SunnyW
Pullout
Pioneer
Turnaround
Rivermouth
Aldenpad
Health&SS
Bayview
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ADNR
Smile
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Boatlaunch
SmileRd
Falls
Salmon
Playground
CBJ

Figure 1.

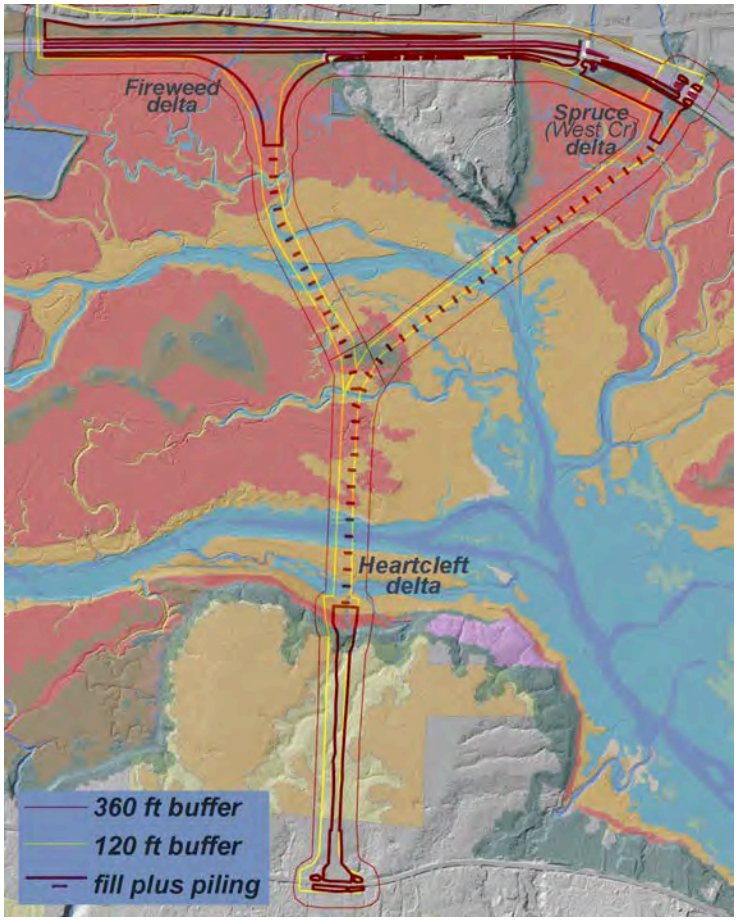
Map Key



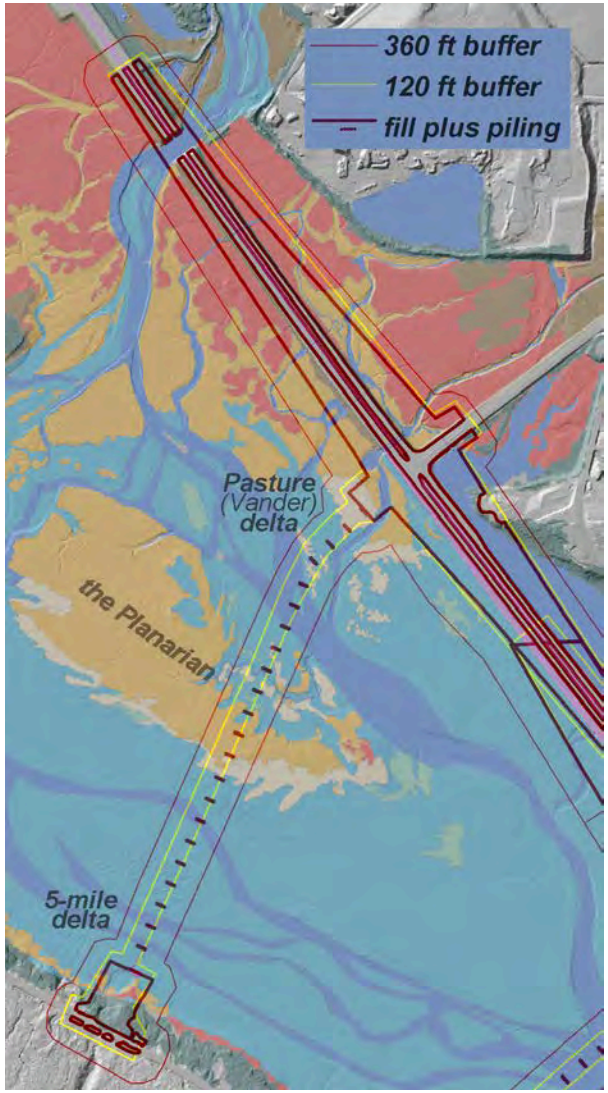
Mendenhall Peninsula



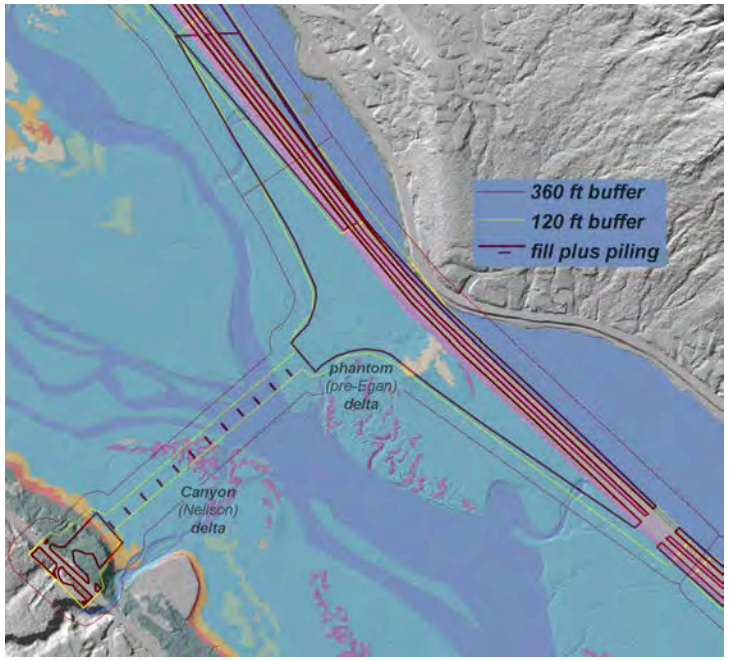
West & East Sunny Point



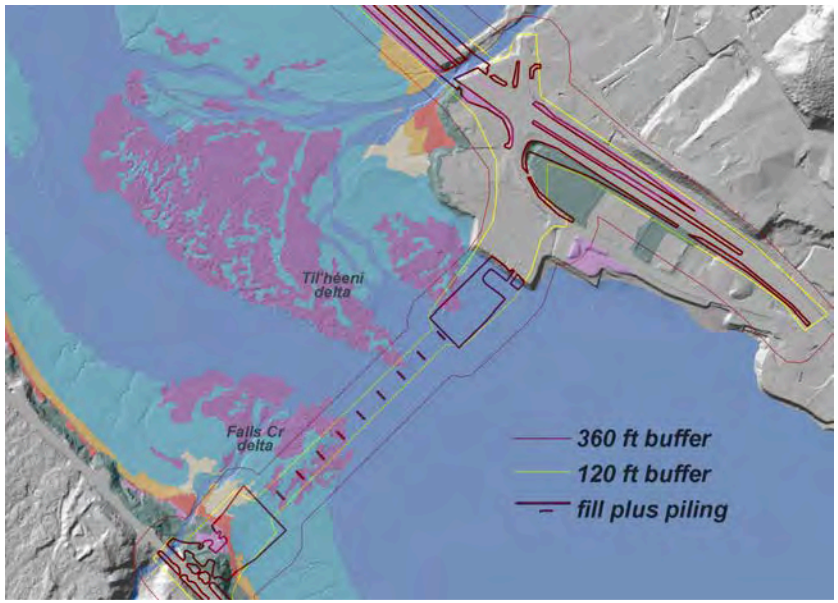
Vanderbilt



Twin Lakes



Salmon Creek



Attachment 1

Mendenhall Wetlands Study Group

Second Crossing to Douglas Recommendations and Comments

January 30, 2023

Introduction:

This is the response of the Juneau Mendenhall Wetlands Study Group (MWSG) to the requests for comments on the Juneau Douglas North Crossing PEL study. Although the opportunity to provide comments on the alternative routes at this point in the PEL study is somewhat of a surprise and contrary to our previous understanding of the process, we sincerely appreciate the opportunity to provide our input while the prescreening process is still in play.

Our group has extensive experience in studying and documenting the values associated with the Mendenhall Wetlands. The Mendenhall Wetlands State Game Refuge is a legislatively established special area which has specific legal and management requirements. Documents like the Mendenhall Wetlands State Game Refuge Management Plan, The Mendenhall Wetlands by Armstrong, Willson, Osborn, & Carstensen, and the December 22, 2003 letter from the Department ofNatural Resources (Office ofHabitat Management and Permitting) to DOT&PF are important references. The latter letter in particular clearly outlines most of the issues that are required to be addressed when selecting and finalizing a crossing route. We have attached a copy of the letter for your use.

Although the PEL process so far has outlined a number of justifications for a second crossing, it isn't clear what the priorities really are and they should be clarified. The suitability of each particular alternative shifts depending on the relative importance of access to EMS, infrastructure resiliency, developable land, etc. Recognizing that access to Douglas Island is important to our borough assembly and many residents, we describe the significant values of the Mendenhall Wetlands; the risk to those values from various alternatives; and, the alternatives we think should move forward to the next stage of analysis so that the second crossing effort can be successful.

Any planning for North Douglas Island must include the development of a Douglas Island Bench Road to facilitate the projected traffic which DOT&PF has indicated the North Douglas Highway is incapable of handling. Second, it seems irresponsible to develop a major project like this without a clear understanding of what the fiscal limitations are. It is prudent to develop recommendations based on the route which has the least negative impacts and the most cost effective positive benefits.

The following provides our comments and recommendations for the various crossing routes presented in the existing PEL process.

Legal and Regulatory Issues

It is important for the PEL analysis to explain to the public the legal context and issues that will have to be dealt with for each proposed alternative. For example, the PEL analysis should explain that each alternative that crosses or impacts the Mendenhall Wetlands State Game Refuge must meet the legal standards for the Refuge. ADF&G Refuge regulations state that Refuges shall be managed to maintain and enhance fish and wildlife populations and their habitat and maintain and enhance public use of fish, wildlife and public lands (5 AAC 95.520).

The Mendenhall Wetlands State Refuge Statute, 16.20.034(i), and regulations (p. 9-10 of the Mendenhall Wetlands Refuge Plan) specify criteria for a potential transportation corridor or docking facility on refuge land. Specifically:

> "The City and Borough of Juneau may acquire refuge lands for a transportation corridor, including a water corridor, only after the following have been demonstrated:
>
> - That there is a significant public need for the corridor which cannot be met off Refuge;
> - That the use of refuge lands is avoided or minimized to the maximum extent feasible including the use of subsurface or elevated, no-fill corridor options where feasible;
> - That public access to the refuge is maintained; and
> - That all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement, and/or other compensation."

Further, the PEL analysis should explain that if U.S. Department of Transportation federal funds are to be used for a project that permanently incorporates, or substantially impairs the attributes of refuge land, then Section 4(f), The Department of Transportation Act of 1966 applies. If a section 4(f) evaluation identifies a feasible and prudent alternative that completely avoids the refuge it **must** be selected. The PEL analysis should note that there are feasible and prudent off-refuge alternatives that avoid the need for a 4(f) analysis and clearly meet the stated purpose and need for this project.

Any solid fill causeway alternatives proposed in the Mendenhall Wetlands State Game Refuge will have unavoidable significant impacts on refuge resources and uses. Any of the on-refuge options built as a solid fill causeway would lie perpendicular to the tidal flow from Gastineau Channel. Culverts and a small bridge over the dredge channel will not be adequate to pass the large flow of water at high tides coming from Gastineau Channel. The large area of wetlands and refuge lands from the causeways west to the airport will lose tidal wetlands from the reduced and changed pattern of flow. This lost tidal flow will not be replaced from Auke Bay to the west because: 1. there is a natural hydrologic divide at the east end of the airport; and 2. the airport

and diking that protect it; and, the large dredge islands southeast of the airport have reduced flow from the west. Because of these unavoidable and unacceptable impacts, and because there are feasible and prudent off-refuge alternatives that meet the stated purpose and needs, we suggest that consideration of solid fill causeway proposals for the Sunny Point east and west, Vanderbilt, and Twin Lake alternatives be eliminated from further consideration.

Further, because there are feasible alternatives off-refuge, in particular the Salmon Creek crossing with a Douglas Island bench road, and because even elevated crossings at Sunny Point east and west, Vanderbilt and Twin Lakes will have significant impacts on refuge resources and uses, the option of elevated crossings in those areas should be eliminated and focus should be on detailed analysis of feasible off-refuge options.

Finally, the PEL should explain that all alternatives and structures that require dredging or filling wetlands of the United States will need a U.S. Army Corps of Engineers 404 permit.

Miscellaneous Considerations

Footprint

Frequently the second crossing discussions are distorted by referring to the footprint of the crossing and the relatively small size of the structure in comparison to the size of the total wetlands area. In reality, the impact of the structure on the surrounding area is greater than the actual "footprint". If the structure does not allow free tidal flow then the impact area is much larger. Similarly, if an area is closed to hunting for one-half mile on each side of the structure, then the impact area is at least a mile wide. If the calculations include altered bird movements, the impact area increases in size accordingly. Other current public uses, such as nature walks, birdwatching, hiking, fishing and wetland studies will be impacted to varying degrees depending 9n the location and type of structure created. Certainly, viewsheds of the wetlands will be permanently altered.

As mentioned above, the issue of hunting is a critical issue for the community. The refuge was originally supported by local high school students that valued the local access to annual waterfowl hunting opportunities literally in their backyard, a practice that is encouraged to this day. Facilitating a reasonable hunting opportunity requires a productive wetlands environment, adequate space to accommodate and spread out hunters and a natural environment that provides a pleasant and sometimes successful experience.

If the immediate impact area includes fisheries habitat modifications then the actual impact area may well include portions of the northern southeast region depending on the species involved. Since the Mendenhall Wetlands is a major resting area for migratory birds, the impact area may well include major portions of the flyway. A critical examination of the listed birds in this document will clearly amplify the importance of the channel crossing decision.

Mitigation

A variety of activities have been taking place the last few years that have positively affected the Mendenhall Wetlands and the Mendenhall State Game Refuge. Mitigation efforts with the expansion of the airport and use of other available funds have resulted in the purchase of areas near or in the Refuge by Southeast Alaska Land Trust to protect existing public values and critical wetlands and associated uplands. However, the availability of lands to mitigate future crossing impacts in kind and locally are clearly limited.

Bench Road

We believe it is crucial that the bench road project be included in this analysis. The existing North Douglas Highway is not adequate for the current high density zoning the Borough implemented along the North Douglas Highway, much less the projected traffic from a second crossing and the eventual development of West Douglas. The benefits of a second crossing are limited and the hazards of the North Douglas Highway increased unless a bench road is part of the project.

Analysis of Alternatives

The primary needs identified for the Second Crossing are alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The PEL document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion.

There is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas Island residents. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, landing at the intersection with the hospital.

The alternatives also have a range of impacts or benefits relative to maintaining Refuge integrity and ecosystem function of the Refuge and associated wetlands. The MWSG is particularly concerned with how well the alternatives meet the goals to "avoid, minimize, and mitigate impacts to the environment ... " and "maintain the visual, cultural, and scenic identity of Juneau and Douglas Island." The MWSG provides below an overview of the ecological and environmental importance of the wetlands encompassed by the study area. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall Wetlands State Game Refuge. It also needs to be recognized that over 40% of the original wetlands have been filled and developed since the late 19th and early 20th centuries up until today. The incremental destruction and sectioning of the Mendenhall Wetlands emphasizes the need for choosing a

crossing alternative that avoids impact to the integrity of the Refuge and the ecosystem functions of the Mendenhall Wetlands.

The best way to maintain the integrity of the Refuge is to keep the crossing out of the Refuge. Alternatives need to meet the Mendenhall Wetlands State Game Refuge Management Plan requirement to allow a transportation corridor on refuge land only if "there is a significant public need for the corridor which cannot be reasonably met off-refuge". This requirement would pertain to the Sunny Point, Vanderbilt, and Twin Lakes alternatives, given that other alternatives that avoid the Refuge have been identified.

Alternatives that avoid the Refuge include Downtown, Eagle Creek, and Salmon Creek. The North Douglas Tunnel alternative could also be designed to avoid impacts to the Refuge by going under it. The entry and exit points for the tunnel would need to be designed to be sufficiently upland to be outside the Refuge and to avoid sensitive habitat areas included in the map schematic for this alternative.

The Mendenhall Peninsula route, although outside of the Refuge, has the potential for significant impacts to Mendenhall Wetlands resources; the specific routing chosen for this alternative would determine its position in one of the groups discussed above.

Environmental Resource Values

The Mendenhall Wetlands is the most important area for fish, birds, invertebrates and some mammals on the Juneau road system. It also has been documented and officially designated as an Important Bird Area of Statewide and Global Significance (Alaska IBAs are mapped at :https://ak.audubon.org/important-bird-areas-4.).

In the broader context of Southeast Alaska's great river-mouth estuaries, according to NWI mapping (National Wetlands Inventory), the Mendenhall Wetlands are 9th in total size, with 3,632 acres. Comparing only salt marsh---the vegetated portion so critical to water birds, rearing fish, and nutrient export---the Mendenhall has 1,450 acres, 3rd among all Southeast estuaries. Unfortunately this size has been much diminished by dikes, fill and roads. (https://juneaunature.discoverysoutheast.org/content_item/american-wetlands-month-features-taashuyee/)

Much of this information has been documented in the book "The Mendenhall Wetlands a globally recognized Important Bird Area" by Robert H. Armstrong, Richard L. Carstensen, Mary F. Willson and Marge Hermans Osborne (available as a pdf on http://naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf). Here are a few examples and documentation on the importance of the Mendenhall Wetlands:

Fish

Dolly Varden - Mendenhall Lake is a major overwintering area for Dolly Varden in the Juneau area. Of special interest is the overall condition of Dolly Varden leaving the lake in the spring is about the same as when they entered in the fall. This indicates that the cold water of the glacial lakes may be the most important overwintering areas for these fish. In the warmer non-glacial lakes these fish lose a fair amount of body fat overwinter. Since these fish have to migrate up Mendenhall River to reach the lake the connections between the wetlands and the lake could be quite important. When the overwintering Dolly Varden leave the lake in the spring the wetlands with their abundance of invertebrates and other fish is a very important feeding area.

Dolly Varden have been documented as one of the most sought after sport fish in the Juneau area. This is especially true for the "land-based fishermen".

Some useful references for these fish are:

Armstrong, R.H. 1974. Migration of anadromous Dolly Varden *(Salvelinus ma/ma)* in southeastern Alaska. Journal of the Fisheries Research Board of Canada 31: 435-444.

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Reed, R. and R.H. Armstrong. 1971. Dolly Varden Sport Fishery-Juneau Area. Federal Aid to Fish Restoration Research Project Segment. Project F-9-3, Study R-IV, Job R-IV-C.

Schmidt, A., S. Robards, and M. McHugh. 1973. Inventory and cataloging of the sport fish and sport fish waters in Southeast Alaska. Alaska Department of Fish and Game. Annual Progress Report. Federal Aid in Fish Restoration. Project F-9-5 Job G-I-A. 62 p.

Pacific herring -- We know that Pacific herring are an important food for Bald Eagles in the Juneau area because researchers have often found herring cached in Bald Eagle nests. Eagles also concentrate to feed on spawning herring wherever they occur in Southeast Alaska. We have observed both juvenile and adult herring trapped in small tidal ponds on the Mendenhall Wetlands. Studies also have shown that occasionally large numbers of juvenile herring use the Wetlands for early feeding.

Whale watching in the Juneau area is an established resource. The Mendenhall Wetlands, with its importance for herring, Pacific sand lance and capelin may be a considerable help in attracting the humpback whales.

Pacific sand lance - On Mendenhall Wetlands, at least two areas of sand lance burrowing activity have been noted. One is straight out from the mouth of Fish Creek near channel marker 19A. The other is up the channel near marker 18. In the area near marker 19A we have observed numerous gulls, ravens, crows, and up to 85 Bald Eagles feeding on sand lance during low tides.

We have also observed Arctic Terns bringing sand lance to their young at the colony on the Wetlands.

Some useful references for these fish are:

Neff, Darcie 2021. A Nonlethal, Whole Oocyte Approach to determining Spawn Readiness in Pacific sand lance, *Ammodytes personatus,* in Southeastern Alaska. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Fisheries University of Alaska Fairbanks (note: the field work for this project was done on the Mendenhall Wetlands).

Willson, M.F. and R.H. Armstrong 1998. Intertidal foraging for Pacific sand lance, Ammodytes hexapterus, by birds. Canadian Field-Naturalist 112(4):715-716.

Willson, M. F., R.H. Armstrong, M. D. Robards, and J. F. Piatt. 1999. Sand lance as cornerstone prey for wildlife predators. Pages 17-44 in: Robards, M. D., M. F. Willson, R.H. Armstrong, and J. F. Piatt. 1999. Sand lance (Ammodytes): Biology, ecology, and annotated bibliography. Pacific Northwest Research Station PNW-RP 521: 1-327.

Capelin -- Capelin, like sand lance, are an important forage fish in Alaska. We have often observed numerous spawned-out capelin in some of the sloughs adjacent to the lower Mendenhall River. We think that the spawning areas for capelin on the Mendenhall Wetlands may be very important for the overall abundance of these forage fish in the Juneau area.

Salmon -- Fifteen fish-producing streams empty out onto the Mendenhall Wetlands. If we count their tributaries as well, 28 streams connect to the Wetlands. Salmon spend all or part of their adult lives in salt water then return to fresh water to spawn-access these streams through the Wetlands. They probably use the Wetlands for feeding and short-term rearing of their young as well.

Most of the salmon found naturally on the Wetlands (coho, chum, sockeye, and pinks) use the freshwater and/or intertidal portions of Wetland streams for spawning and rearing of their young. All four species also pass through the Wetlands during migration to and from the sea.

The Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC) is located adjacent to Mendenhall Wetlands near Salmon Creek. Young and adult chum, coho, pink, and possibly chinook salmon from the hatchery also use tidal sloughs and streams around the Wetlands for early marine rearing and spawning. In most years the hatchery releases millions of young salmon into Gastineau Channel. Many returning adults stray into and spawn in streams associated with the Wetlands.

The sport and commercial salmon fisheries are very important in Juneau. We believe the Mendenhall Wetlands contributes considerably and may even be critical to the health of these fisheries.

Some useful references are:

Bethers M., K. Munk, and C. Seifert. 1995. Juneau Fish Habitat Assessment. Alaska Department of Fish and Game, Division of Sport Fish, Douglas, Alaska. 128 p.

Bishop, D., R. Armstrong, and R. Carstensen. 1987. Environmental analysis of lower Jordan Creek and nearby wetlands in regard to planned airport taxiway extension. Environaid, Juneau, AK. 67 pp.
https://juneaunature.discoverysoutheast.org/content_item/bishop-armstrong-carstensen-1987/

Briscoe, R. 2004. Overwinter use of microhabitats by juvenile coho salmon in Jordan Creek. Alaska Department of Fish and Game, Southeast Sustainable Salmon Funds Project on Duck and Jordan Creeks, Juneau, Alaska.

Celewycz, A.G., A.C. Wertheimer, J.A. Orsi, and J.L. Lum. 1994. Nearshore distribution and residency of pink salmon (Oncorhynchus gorbuscha) and chum salmon (0. keta) fry and their predators in Auke Bay and Gastineau Channel, southeast Alaska. U.S. Dep. Commer., AFSC Proc. Rep. 94-05, 39 p.

Gerke, B., M. Lorenz, and KV. Koski. 1999. Distribution of Pink and Chum Salmon Fry in Estuaries near Juneau. In Proceedings of the Northeast Pacific Pink and Chum Salmon Workshop, Juneau Alaska, June 1, 1999, NMFS, 11305 Glacier Hwy, Juneau, pp 73-79.

Koski, K.V. 2009. The fate of coho salmon nomads: the story of an estuarine-rearing strategy promoting resilience. Ecology and Society 154(1): 4. [online] URL; http://www.ecologyandsociety.org/vol14/ issl/art4/

Mortensen, D.G., A.C. Wertheimer, J.M. Maselko, and S.G. Taylor. 2002. Survival and straying of Auke Creek, Alaska, pink salmon marked with coded wire tags and thermally induced otolith marks. Transactions of the American Fisheries Society 131(1):14-26.

Thrower, F.P. 1988. Migratory behavior of maturing pink salmon in Gastineau Channel, Southeast Alaska. Unpublished MS Thesis, University of Alaska.

Starry Flounder -- Starry flounder were the most common flounder captured on Mendenhall Wetlands during a study in 2002 by Lynn Mattes. They were also numerous within the intertidal channels near the airport in 1986. We have observed Great Blue Herons feeding on them, and one Southeast study found they were common prey items brought to eaglets by their parents. We have also observed river otters feeding on them within the Wetlands, and we've watched American Dippers eating juvenile flounder within the lower reaches of Switzer Creek.

Mattes, Lynn A. 2003. Habitat usage by flatfish (Pleuronectidae) in the Mendenhall wetlands, Juneau, Alaska. M.S. Thesis, University of Alaska, Fairbanks. 76 pp.

Birds

Mendenhall Wetlands provides food and/or resting space to a remarkable variety and abundance of birds. As of November 2008, observers had recorded sightings of 256 different species of birds. That's 83 percent of the 308 species seen in the entire Juneau area (from Taku Inlet to Berners Bay) and 73 percent of the 352 bird species seen in all of Southeast Alaska (from Dixon Entrance to Yakutat). Because of the variety and complexity of its habitats, Mendenhall Wetlands is widely acknowledged to be one of the key stopover points for migratory waterfowl and shorebirds in coastal Alaska.

To help identify, monitor, and prevent further degradation of shorebird stopover areas, the Western Hemisphere Shorebird Reserve Network has been established. The Alaska plan recognizes only three important shorebird sites in all of Southeast Alaska the Stikine River Delta, Yakutat Forelands, and Mendenhall Wetlands. These sites are currently under consideration for inclusion within the Western Hemisphere Shorebird Reserve Network.

Besides the importance of the Mendenhall Wetlands for birds of Southeast Alaska it is also considered important for many species both state and world-wide. In order to qualify for a globally or continentally significant IBA a site must support a significant portion of the flyway population of a particular species. In general, to qualify the site must have supported over one percent of the North American population at one time, or more than five percent of the population for the season. At the time of application there were more than 10,000 documented observations of the number of birds, by species, that occurred on the Mendenhall Wetlands at one time. Several species fell within the IBA qualifying criteria. They included Greater White-fronted Goose, Canada Goose (Vancouver subspecies), Surfbird, Thayer's Gull, Surf Scoter, American Golden-Plover, Lesser Yellowlegs, Ruddy Turnstone, Black Turnstone, Western Sandpiper, Pectoral Sandpiper, Rock Sandpiper, Dunlin, Short-billed Dowitcher, and Bonaparte's Gull. Some of these species were also on the Audubon WatchList because of concerns about their conservation status. Those included Surfbird, American Golden-Plover, Rock Sandpiper, and Short-billed Dowitcher.

For example **Canada Geese** are essentially year-round residents on the Mendenhall Wetlands, favoring the sedge meadows and ponds near the dike. The resident subspecies is the Vancouver Canada Goose *(Branta canadensis fulva),* which lives and nests from northern Southeast Alaska southward to northern Vancouver Island, British Columbia. Within this area it is considered to be a nonmigratory subspecies. We estimate that between 500 and 700 Vancouver Canada Geese use the Wetlands. This figure is based on counts covering the entire Wetlands when we were fairly sure the geese had not been disturbed.

Another example is **Mallards.** They occur in greatest numbers on the Wetlands from December through April, when up to 2,000 individuals have been seen in a single day. In most other months the numbers range from 200 to 1,000 individuals. Banding studies have shown that winter Mallards on the Wetlands are not the same as summer Mallards. Young produced in Juneau go

mostly down the coast to Washington and California. The winter birds have come from nesting habitat in the Yukon River Valley. The Mendenhall Wetlands are an important wintering area for these birds, and judging from the peak numbers documented in April, they're also an important stopover for migrating Mallards. The Mendenhall Wetlands provide summer food and a limited amount of nesting habitat for Mallards. Every year at least one brood has been observed within the floatplane basin and we have seen Mallard nests in the vicinity of Wigeon Ponds near Mendenhall Peninsula.

And **Bald Eagle--In** 2008, about 68 Bald Eagle nests were close enough to Mendenhall Wetlands that the resident pairs could forage there; about 35 percent of those nests are active in any given year. The Wetlands have probably been essential to the nesting success of these birds.

Glaucous-winged and **Herring Gulls** have a nesting colony on the rock face near Mendenhall Glacier, and they use the Mendenhall Wetlands for foraging. **Arctic Terns** also use the Wetlands for feeding from late April to late August.

Shorebirds What is it about the Mendenhall Wetlands that makes the area attractive to so many shorebirds? For one answer we can consider what birds need. According to Scott Weidensaul, the author of Living on the Wind, a book about bird migration: Most of the world's surface is useless to a shorebird-too wet, too dry, too forested, too mountainous, too farmed, too urban, too this or that. Much of the wetland habitat on which many species depend has been lost. So the relatively few places that still suit the birds' needs are important beyond measure. The Mendenhall Wetlands are indeed important beyond measure because they are one of very few places in Southeast that provide enough food and habitat that migrating shorebirds need. Along their migration routes, which may extend for thousands of miles, shorebirds depend on relatively few stopover sites for refueling and resting. Those sites are usually separated by considerable distances, and during stopovers, food is often available for only a few hours around low tide. For a small bird traveling thousands of miles between its wintering and breeding ranges, efficiency in refueling and quality of resting time can mean the difference between life and death, or between succeeding or failing to reproduce in a given year.

In summary, migratory shorebirds and waterfowl are the species most often discussed in association with Mendenhall Wetlands. But there is no question that the Wetlands are equally important to many other groups of birds, including a number of migrating songbirds and the raptors that travel with and prey on them, and local resident species such as Northwestern Crows and Common Ravens.

Some useful references:

Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

Armstrong, R. and R. Gordon, 2002. Birds of Mendenhall Wetlands, checklist, Juneau Audubon Society.

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King, J.G. 2008. Attending Alaska's Birds. Trafford Publishing. 470 pp.

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Watson, S. 1979. Avian Habitats and Use of the Mendenhall Wetlands Wildlife Refuge. Prepared in partial fulfillment of graduate degree from Utah State University.

Invertebrates

The large expanses of sand and mudflat on Mendenhall Wetlands may look barren, but in fact many of them are treasure-fields of marine invertebrates that provide important food for wetland birds. Buried in mud and sand, or tucked among rocks and clumps of seaweed, is an amazing variety of small creatures such as amphipods (small, shrimp-like invertebrates), tiny clams, snails, worms, and other creatures often invisible to people casually visiting the area. Even the larger more obvious invertebrates such as mussels and barnacles are important food for certain birds.

Certain species of tiny amphipods build double-ended U-shaped tubes in the sediment of sloughs. The tubes appear to be slightly sticky and stick up above the sediment a short distance, so debris collects around them, making a fuzzy mat. These amphipods feed from one end of the tube by sweeping the surrounding area for algae and plant debris with their antennae. These tube-dwelling amphipods are an extremely important shorebird food in some areas. One study concluded that Semipalmated Sandpipers prefer these amphipods over other food, and a part of the Wetlands where these amphipods are abundant is a favored feeding spot for several species of shorebirds.

This is the best source of information on the invertebrates of the Mendenhall Wetlands: Willson M.F. and A.P. Baldwin. 2004. Invertebrate surveys on the Mendenhall wetlands. pp 1-32. Report to USFWS.
https://juneaunature.discoverysoutheast.org/content_item/willson-baldwin-invert-study-2004/

Mammals

A variety of mammals have been seen on Mendenhall Wetlands. On rare occasions, moose and brown bear have been among them, but the most commonly seen are Sitka black-tailed deer, black bears, harbor seals, and smaller mammals such as river otters, mink, and short-tailed weasels. The most important mammals for birds are small rodents and insectivores. Voles, mice, and shrews are important prey for Short-eared Owls, Northern Harriers, and American Kestrels. Long-tailed voles *(Microtus longicaudus)* are the most common year-round mammals on the Wetlands. They inhabit sedge and grass areas, where they feed on roots, seeds, and the tender bases of stems. Our examination of regurgitated Short-eared Owl pellets indicates they prey here almost exclusively on long-tailed voles. The owls periodically overwinter in numbers when vole populations are high. Of interest is beavers have been recently moving into and living in the wetlands. The ponds they create often provide good habitat for fish and aquatic insects.

Development around the periphery of the Wetlands has created nearly impassable barriers for large mobile mammals such as deer, black bear, wolf, porcupine and beaver. Although primarily forest-dwelling, these species throughout Southeast Alaska move seasonally onto more open estuarine habitats for grazing, hunting, and strategic crossings, in our case between Sayeik (Douglas Island) and mainland. Much of this use is nocturnal, especially around high human densities.

Glacial rebound, along with restrictions to tidal flow from roads, dikes and spoil islands, is rapidly altering the array of vegetation types throughout the Wetlands. Trends are generally discouraging for fish and water birds, but there is one positive progression. Around the periphery, uplift parkland---former tideland raised above extreme high tide---is advancing seaward. Almost completely lost to development outside the Refuge boundary, this belt of uplift parkland is now growing again within it. That's good news for the above-listed widely traveling mammals, and some smaller resident species such as long-tailed vole. Managers should do all in their power to maximize such benefits, which means minimizing further fragmentation that comes with additional crossings of the Wetlands.

Vegetation

Vegetation of the Wetlands is constantly changing in response to glacial rebound and human-induced changes to landforms and tidal flow. Estuarine vegetation was mapped and described in 2003 for Southeast Alaska Land Trust (SEALT) by Carstensen (2004) GIS Mapping for Mendenhall Wetland State Game Refuge. A pdf can be downloaded from:

https://juneaunature.discoverysoutheast.org/content_item/glacial-rebound-in-the-mendenhall-wetlands/

Before impacts of any proposed crossing can be understood, updated maps are necessary, both in the immediate vicinity and wetlands-wide, in order to identify rare and decreasing vegetation

types, and trends. Vegetation types in the 2004 report should be used, for analysis of change over time.

Historical Note

According to Jim King: "The history of Mendenhall Wetlands repeats the continent-wide loss of coastal wetlands in North America. Wetlands in urban areas have been filled even when that depleted the resources that attracted the original settlers. Cities such as Boston, New York, Baltimore, New Orleans, San Francisco, and Seattle were built upon the country's largest and richest estuaries. Millions of dollars are being spent to repair a fraction of our national coastal wetlands. The values of these wetlands are now known to be the source of our nearshore seafood, as buffers against storm surges, their ability to filter many pollutants, and their importance in providing food and habitat for a wide variety of birds and other animals. In the past there have been attempts to fund a socioeconomic study of the Mendenhall Wetlands as a guide to current planning and activities in the area. It is not too late to do such a study."

Summary

Our recommendations concerning the specific potential crossing routes are listed here.

Mendenhall Peninsula:

The Mendenhall Peninsula alternative could be designed to stay out of the refuge, with connection points at the end of the Peninsula and west of the North Douglas boat ramp. However, the location of the connection point at the end of Mendenhall Peninsula would be crucial and must avoid the area at the Mendenhall River mouth, which has been identified as the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important Pacific sand lance spawning area.

If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening. Tunneling from the Peninsula might be a better alternative if this route is seriously considered.

North Airport:

The only way this route can be accommodated without significant environmental damages is through tunneling the entire distance. An above ground structure would be unacceptable for a variety of reasons involving the airport and the environmental impacts.

Sunny Point West:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands areas. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Sunny Point East:

This crossing route creates some of the most serious environmental impacts because it travels through the heart of the Refuge/wetlands area. The only way it can be environmentally acceptable is if it is tunneled the entire way. All of the negative issues come in to play with this route.

Vanderbilt:

This crossing route is marginal at best. Although it does not run through the heart of the Refuge, it does cross critical wetlands that are improving annually due to the glacial rebound issue. Marginal mud flats now surfacing during the tidal flushes will eventually provide critical salt marsh vegetation and food critical to the birds utilizing the Refuge during critical parts of the year. If the route is selected for further analysis, it is important that the crossing be on pilings because of the tidal flux issue.

Twin Lakes:

This crossing route is similar to the Vanderbilt route but is important to a lesser degree as the channel is deeper at this time and it is uncertain how much the glacial rebound will affect this area. If this route is selected, it would be preferable to move it further to the east if at all possible. Placing this crossing on pilings is important because of the tidal issues associated with the wetlands.

Salmon Creek:

From a safety issue and access to the hospital, this route is the most logical. If the crossing is on piling, then there are no obvious tidal concerns that would impact the wetlands.

Eagle Creek:

This crossing provides few negatives as long_ as the crossing is elevated and there are no tidal flux issues.

Downtown:

This crossing provides few negatives as long as the crossing is elevated and there are no tidal flux issues.

Attachment

Letter from the Department of Natural Resources
(Office of Habitat Management and Permitting) to DOT&PF
December 22, 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

400 WILLOUGHBY AVENUE
JUNEAU, ALASKA 99801-1796
PHONE: (907) 465-4182
FAX: (907) 465-4759

DEPARTMENT OF NATURAL RESOURCES *OFFICE OF HABITAT MANAGEMENT AND PERMITTING*
JUNEAU AREA OFFICE

22 December, 2003
Mr. Michael Lukshin
ADOT&PF, Southeast Region
Statewide Design & Engineering Services
Juneau, AK 99801

Dear Mr. Luk.shin:

RE: Gastineau Channel Second Crossing, NEPA scoping comments
ADOT&PF Project No. 68540, Fed. Project No. HP-0954(18)

The Alaska Department of Natural Resources Office of Habitat Management and Permitting (DNR OHMP) has received your request for scoping comments for the Second Crossing EIS and offers the following comments.

In summary, DNR OHMP recommends the following:

1. **Clarify, rank, and fully document the project purposes and needs.**
2. **Incorporate environmental goals in the Purpose & Need Statement.**
3. **Broaden geographic scope to include reasonably foreseeable impacts.**
4. **Realistically assess potential benefits, beneficiaries and costs.**
5. **Fully explore off-refuge alternatives, including water-based transport.**
6. **Consider interchange sites other than those existing.**

Project Overview
The 1984 CBJ Second Gastineau Channel Crossing Feasibility Study looked at 15 alternative alignments to connect the Mendenhall Valley with North Douglas Island; most were located on the Mendenhall Wetlands State Game Refuge. The recommended alternative extended from 8-Mile Egan to Fish Creek Road on Douglas Island. The 1992 update to the 1984 feasibility study identified a low-level crossing through the Mendenhall State Game Refuge in the Mendenhall Bar area as the least costly alternative.

The 1984 feasibility study assumed very extensive fill footprints (up to 4000 linear feet) at the crossing locations within the refuge, with much of the fill being obtained from dredging within Gastineau Channel or elsewhere on the refuge. The feasibility study stated that alternatives located near, but not on, the refuge would also have significant effects on refuge habitats and use.

According to DOT, crossing types now under consideration for the Second Crossing EIS include fixed bridge, bascule bridge, floating bridge, causeway, and tunnel. The currently proposed Gastineau Channel Second crossing EIS project has not as yet identified specific alternatives. It

appears, however, that some of the alternatives, including alternatives currently favored by DOT and CBJ, would cross the refuge near its widest extent, with significant impacts to refuge hydrology, wildlife, and human use. Such crossings could compromise the basic function and purpose of the refuge, fragmenting habitats and reducing their long-term value for wildlife, hunting, and recreation.

The Mendenhall State Game Refuge was established in 1976 to protect natural habitat and game populations, especially waterfowl, and to provide recreation. It contains approximately 3,800 acres of saltwater and freshwater intertidal habitat along Gastineau Channel from Salmon Creek to the Mendenhall Peninsula. Salt marsh and mud flat habitats are regionally rare due to the extreme topography and strong currents of southeast Alaska. There is no other extensive salt marsh of comparable value to migratory birds in northern southeast Alaska. The refuge is perhaps the most popular public recreation and outdoor education area in Juneau, and provides habitat for a large proportion of the regions' Vancouver Canada geese and for other waterfowl, bald eagles, shorebirds, passerine birds, terrestrial and marine mammals, invertebrates, and anadromous and marine fish.

Purpose and Need

The project purposes should be ranked in importance and clarified so that alternatives may be evaluated with respect to each one. The primary stated goal is for improved access to the West Douglas potential New Growth Area in order to facilitate its development. What is the degree of access improvement deemed necessary to meet the need and why? Are cars and trucks the only transport means under consideration? Water-based transport, as provided for many remote communities, may be a feasible means of transport for West Douglas and therefore must be considered to meet review criteria for refuge lands.

Given the public resources at stake and the stringent criteria for disposal of refuge land, the specific needs for the project, as well as the populations served, should be well defined and thoroughly documented. For example, is the need for West Douglas residents to gain quicker access to commercial areas of the Valley, or to downtown? Or is the main concern to gain quicker access from Valley residential areas to commercial areas of West Douglas? Is creation of new housing an important part of the rationale for West Douglas development, and if so, is the type of housing in line with community needs?

Population projections in the 1984 Feasibility Study substantially overestimated the population growth that has occurred since then. The current analysis should carefully re-evaluate population and growth assumptions.

Another need mentioned as secondary, but apparently important, is for alternate access in case of a major disaster affecting the existing bridge. A risk assessment and comparison with other isolated communities would be helpful to address this concern.

In explaining the rationale for and scope of the proposed Second Crossing EIS, city and the consultants have described the West Douglas Conceptual Plan as a Master Plan. The plan itself states that it is "conceptual," however, and not intended to meet the more detailed CBJ land use

criteria for a "Master Plan". This may be an important distinction. Project materials that refer to the Conceptual Plan as a Master Plan should be corrected.

Similarly, the North Douglas Highway Extension Corridor Identification EIS has been informally referenced in the rationale for the Second Crossing project as well as the rationale for the proposed omission of West Douglas from the scope of the Second Crossing EIS. The Final EIS for the North Douglas Corridor ID EIS responded to comments from ADF&G concerning the lack of resource and impact information in the draft EIS by explaining that the document considered corridor designation only and therefore did not warrant the more thorough analysis of impacts needed for a road proposal. The EIS also states that in 1988, respondents were generally opposed to building a highway in the West Douglas area. More recent information on public need may be required to support a finding of "superior public need" for a Second Crossing.

Given the project location, it would be wise, and realistic, to incorporate environmental goals, including refuge management goals, into the purpose and need. The *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

Key criteria for permitting activities on the refuge are that use or activity is consistent with the protection of fish and wildlife and their habitat, and public use and enjoyment of the resource values for which the special area was established. Specific criteria for a transportation corridor on the refuge are that there is a significant public need for the corridor which cannot reasonably be met off-refuge, that use of refuge lands must be avoided or minimized to the extent feasible, that public access must be maintained, and all unavoidable impacts must be fully mitigated.

Scope of Review

If the primary purpose of the second crossing is to allow development of West Douglas, it is 'reasonably foreseeable' that the project would result in development of West Douglas, including habitat impacts to that area which would not otherwise occur. Given the project purpose, the scope of review needs to be extended to include the West Douglas potential New Growth Area. As noted above, detailed planning and impact analysis documents for a road and related development on West Douglas do not currently exist.

Similarly, the project scope should be extended to include some analysis of the bench road corridor parallel to the North Douglas Highway and upgrade of the North Douglas Highway. The 1984 Second Gastineau Channel Crossing Feasibility Study concluded that a "bench road" would likely be needed if a second crossing were built because it would not be possible to upgrade North Douglas Highway sufficiently to meet the increased traffic needs.

The effects of the project on congestion at the current bridge could also be dealt with to evaluate the need for the second crossing in the context of related, and potentially more urgent traffic concerns. Development of West Douglas may increase use of the North Douglas Highway and further burden the busy highway and existing bridge.

As we understand it, DOT will consider only those routes that connect to existing interchanges. This constraint may unduly constrain crossing locations, unnecessarily limiting opportunities to avoid or minimize effects on refuge habitats and public access.

ADF&G and DNR review roles

A memorandum of understanding between DNR and ADF&G dated October 16, 2003 provides guidelines regarding habitat/review responsibilities for each agency, including the following:

Alaska Department of Fish and Game (ADF&G) is the lead for

- Special Area (including game refuges) management and permitting
- Coastal management reviews (and COE permit reviews) within Special Areas, and
- habitat-related review ofDNR land disposals, including those for acquisition of land or easements within state game refuges.

DNR Office of Habitat Management and Permitting (OHMP) is the lead for

- Fish Habitat permitting,
- Coastal management reviews (and COE permit reviews) outside Special Areas, and
- NEPA reviews for federal actions.

Potential impacts to Mendenhall State Game Refuge will be central to this NEPA review, so we expect that ADF&G and DNR will coordinate closely and that both agencies will participate. Depending on the preferred alternative, either ADF&G or OHMP may be the lead for coastal management review of this project. Coastal management review normally coincides with release of the draft EIS.

An AG's opinion *(366-045-84* and *366-122-84,* 11/8/85), addresses in detail the land management authorities ofDNR and ADF&G with respect to state game refuges. In brief, it states that ADF&G has authority over activities that affect fish and game or their habitats. Any activity that normally requires a DNR authorization or action outside a refuge is also likely to require a similar DNR action inside a refuge. Decisions of both agencies must reflect the legislative intent for the refuge.

Review Criteria for the Refuge

Alternative routes and designs for the second crossing must be evaluated for impacts on refuge resources and goals. Regulations governing the refuge include a management plan that outlines management goals *(Refuge Mgmt Plan 5 AAC 95.520):* "The goals and policies of the *Mendenhall Wetlands State Game Refuge Management Plan* dated March 1990 are adopted by reference."

As noted above, the *Mendenhall Wetlands State Game Refuge Management Plan* (page 6) states that the refuge will be managed to maintain and enhance fish and wildlife populations and their habitat and to maintain and enhance public use of fish, wildlife, and refuge lands. Cumulative impacts of incremental developments and actions must be considered, and habitat degradation due to fragmentation must be minimized.

According to the refuge plan, all management decisions affecting the Mendenhall Wetlands State Game Refuge, whether for activities undertaken by the department, other agencies, or the public, must be in accordance with the following goals:

For wildlife--

*Protect important wildlife habitat including water quality;
*Minimize harmful disturbance to wildlife especially to nesting, rearing, staging and wintering waterfowl;
*Maintain, protect, and where appropriate, enhance the quality and quantity of nesting, rearing, staging and wintering habitat for resident and migrant waterfowl;
*Protect bald eagle nesting, perching, and roosting habitat including the maintenance of wind firm _boundaries around large old trees;
*Protect habitat and minimize harmful disturbance to endangered species, such as peregrine falcon and humpback whales.

For fish--
*Protect water quality and circulation patterns to maintain fish habitats;
*Maintain refuge water quality sufficient for growth and propagation of fish, shellfish and other aquatic life in fresh, estuarine, and marine waters;
*Maintain refuge water quality sufficient for harvest for human consumption of raw mollusks or other raw aquatic life;
*Maintain and, where necessary, improve the hydrologic integrity of the refuge.

For human activities--
*Maintain public access to and within the refuge consistent with the Refuge Plan;
*Maintain opportunities for hunting waterfowl and fishing;
*Maintain opportunities for recreation, viewing, photography, education and the study of fish and wildlife;
*Provide information about the refuge to the public.

The refuge mgmt plan is implemented through Special Area Permitting for activities affecting fish and wildlife, their habitat, or their use (5 AAC 94.410 (b), AAC 95.700-760.) Special Area permit review criteria require that the basic purpose and function of the refuge be maintained. Permits are issued only if

1. the use or activity is consistent with the protection of fish and wildlife and their use, protection of fish and wildlife habitat, and the purpose for which the special area was established; and

2. the use or activity does not unduly restrict or interfere with the public use and enjoyment of the resource values for which the special area was established; and

3. any adverse effect upon fish and wildlife, and their habitats, and any restriction or interference with public use, is mitigated in accordance with 5AAC 95.900.

[5AAC 95.430 Conditioning, Approval, or Denial of Special Area Permits.]

For reference, ADF&G Special Area Permit Regulations, 5 AAC 95.900, contain the following requirements for mitigation on state game refuge lands, with primary emphasis on impact avoidance:

(a) Each permittee shall mitigate any adverse impact upon fish or wildlife or their habitat, which the commissioner determines may be expected to result from, or which actually results from, the permittee's activity, or which was a direct result of the permittee's failure to

(1) comply with the permit condition or a provision of this chapter; or
(2) correct a condition or change a method foreseeably detrimental to fish or wildlife, or their habitat.

(b) Mitigation techniques must be employed in the following order of priority:

(1) avoid an impact altogether by not raking a certain action or parts of an action;
(2) minimize an impact by limiting the degree of magnitude of the action;
(3) rectify the impact by repairing, rehabilitating, or restoring the affected environment;
(4) reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
(5) compensate for the impact by replacing or providing substitute resources or environments.

A special area permit from ADF&G cannot convey an interest in state land or grant any preference right for the lease or purchase of state land (5 AAC 95.440. Limitations on Special Area Permits). Lease or acquisition would entail additional review and criteria, and would be contingent upon a joint finding by ADF&G and DNR.

In accordance with AS 16.20.034, the Mendenhall Wetlands State Game Refuge Management Plan (p.l 0) specifies criteria for a potential transportation corridor or docking facility on refuge land:

"The City and Borough of Juneau may acquire refuge lands for a public transportation corridor, including a water corridor, only after the following have been demonstrated:

(1) that there is a significant public need for the corridor which cannot reasonably be met off-refuge;

(2) that the use of refuge lands is avoided or minimized to the maximum extent feasible including use of Sl,lbsurface or elevated, no-fill corridor options where feasible;

(3) that public access to the refuge is maintained; and

(4) that all unavoidable impacts to the refuge and to refuge resources are fully mitigated through restoration, replacement and/or other compensation."

"The City and Borough of Juneau may acquire land for use as a publicly owned and operated docking facility only if there is a significant public need for which there is no feasible off-refuge

alternative and impacts to the refuge and to refuge resources are fully mitigated. Any such site must avoid dredging and filling for construction and maintenance to the maximum extent feasible."

Each of these criteria must be fully and explicitly addressed through the identification and evaluation of alternatives for the second crossing.

Refuge Advisory Group Recommendations

Per the refuge management plan, a citizens committee advises ADF&G on issues relating to the protection and management of the refuge. Mendenhall Refuge Citizen's Advisory Group members have requested that impacts to refuge resources and uses, including indirect, secondary and cumulative impacts, be fully identified and avoided. They have requested clarification of the project need and advised that off-refuge alternatives should be fully explored and considered in preference to those crossing the refuge. They have requested that they be informed of project status throughout the EIS process.

Additional Review Criteria

Habitat impacts of the project within and outside of the refuge will also be reviewed with reference to other applicable municipal and state land use documents and regulations, including state habitat standards, coastal management enforceable policies (including the Juneau Wetlands Management Plan, Juneau Coastal Mgmt Plan and Policies), impaired waterbody recovery plans, state species of concern, and state fish passage/habitat requirements (AS 41.14.840 and .870).

Impact Assessment

Because of the need to evaluate extensive and significant potential impacts to the refuge and other affected habitats, a thorough analysis of biological and hydrologic functions and impacts will be critical. We would like to see comprehensive cumulative impact analysis to provide context for long-term land management decisions on North and West Douglas Island as well as the Mendenhall wetlands. Impacts to human use of resources should receive special attention.

Cumulative, indirect and secondary effects. Impact assessment for affected Gastineau Channel wetlands and streams should address cumulative habitat loss and degradation due to development, including proposed expansion of the airport. It should also address cumulative impacts from stormwater, wastewater, and industrial discharges; colonization by invasive species; isostatic uplift; and potential, pending, and approved accretion claims.

Preliminary results from recent re-sampling of wetlands plots from the 1960s indicate that striking changes have occurred over large portions of the remaining Gastineau Channel wetlands. Dredge spoils, runways, and roads appear to have contributed to changes in remaining wetlands via changed salinity, sediment transport, and/or drainage patterns. Impact assessment for fill in estuarine wetlands must therefore address cumulative and potential effects on natural communities from changes in water quality, tidal flushing, salinity, sediment and nutrient transport.

"Pilings-only" design options. Cost estimates for each alternative should take into account criteria for avoidance and minimization of habitat damage. For example, alternatives analysis will need to include cost estimates for "pilings-only" design options for routes within wetlands. Structures

supported by pilings, rather that fill, would be expected to have fewer impacts on hydrology and fish and wildlife movement through the refuge.

Behavioral effects. Analyses should consider effects of alternatives on bird habitat use as well as habitat availability and should consider potential effects on airport safety. Effects of noise and lighting, and effects on wildlife movement and resting as well as foraging, should be considered.

Douglas Island impacts. West Douglas is a popular deer hunting area for Juneau residents. It hosts a number of productive salmon streams and provides winter refuge habitat for deer. To cover the scope of reasonably foreseeable project impacts, the analysis should address important fish and wildlife resources, and current human use of those resources, along North Douglas Highway, the along the potential alignment of the "bench road", and in the potential new growth area on West Douglas. Habitat identification and impact assessment should include :freshwater and estuarine wetlands, resident and anadromous fish habitat, deer winter refuge habitat, waterfowl concentration areas, amphibian breeding ponds, productive eelgrass and shellfish beds, and rare natural communities/forest types.

According to CBJ land use code, a Master Plan is needed in advance of development of a new growth area. CBJ Master Plan criteria include identification of important habitats. The West Douglas Conceptual Plan and North Douglas Highway Extension Corridor EIS do not identify resources or potential impacts in adequate detail to predict significant impacts. An example of this information gap is the extensive additional fish habitat recently mapped in the Peterson Creek watershed that was not available and therefore not included in these documents. Additional habitat mapping and fieldwork is needed to identify Douglas Island resources that may be affected by the Second Crossing project.

Human use. The EIS should address effects of the project on access, hunting, shellfish gathering, sport and commercial fishing and related vessel traffic, outdoor education, wildlife viewing, and other recreational uses and values, including scenic values of the refuge.

Selected Refuge Information Needs

Geographically referenced recreational and hunter use information will be needed to assess potential impacts on access and use. Water quality and benthic toxicology data for the refuge is lacking and would be required to address cumulative impacts of urban pollutants from proposed and existing road run-off and other sources.

Relatively little information is available for the refuge concerning habitat use by invertebrates; bird resting and night-time use areas; quantification of marsh productivity or waterfowl foraging intensity in different habitats; patterns of use by juvenile anadromous and marine fish; use by adult capelin, sand lance, and eulachon; bird use of habitats on the central Douglas side of the refuge; and wildlife disturbance effects from development and recreational use. The refuge has been selected by the Alaska Shorebird Working Group as a key regional site for shorebird population monitoring, but currently available stopover population estimates are limited to informal observations.

New and Existing Information

We have briefly reviewed the extensive project bibliography and have noted a few omissions. We will provide additional citations and/or contact information for salt marsh vegetation work by C. Stone and by J. Crow; ADF&G-funded amphibian surveys; FWS-funded refuge "Hotspots" and invertebrates surveys; estuarine rearing and juvenile marine fish habitat use papers by Atagi, Koski and others; and accretion/vegetation mapping by Sealtrust. Hunter survey information from the Mendenhall Wetlands registration hunt will be available from ADF&G later this winter. Limited sport-fishing, commercial use, and escapement information is also available from ADF&G.

Thank you for the opportunity to comment. We look forward to continued involvement in the scoping and impact analysis process. If you have any questions, please contact OHMP, Catherine Pohl, at 465-4182.

Sincerely,

Moira Ingle

Office of Habitat Management and Permitting, Juneau

cc: Al Ott, OHMP, Fairbanks
Kerry Howard, OHMP, Juneau
Catherine Pohl, OHMP, Juneau
Brian Glynn, ADF&G, Juneau
Neil Barten, ADF&G, Juneau
Kevin Monagle, ADF&G, Juneau
Gretchen Bishop, ADF&G, Juneau
Dale Rabe, ADF&G, Juneau
Doug Larsen, ADF&G, Juneau
Robin Willis, ADF&G, Anchorage
Wayne Dolezal, ADF&G, Anchorage
Jim Powell, DEC, Juneau
Chris Meade, EPA
Susan Walker, NMFS, Juneau
Linda Shaw, NMFS, Juneau
Richard Enriquez, FWS, Juneau
Deborah Rudis, FWS, Juneau
John Leeds, Army Corps of Engineers

From:	C Pohl
To:	Morgan McCammon
Cc:	somerville@gci.net; Gentemann, Christy D (DOT); Matt Robus
Subject:	Re: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening
Date:	Wednesday, April 10, 2024 5:37:32 PM

Thanks for the opportunity to meet via web.

Yes, nice to have some clarification, if you can call it that. So, for the record, we have determined that your "nests" are not nests, and your ebird "Hotspots" are not eBird hotspots, at least not the community-based hotspots shown on the ebird portal. And they are also not Armstrong et al. Hotspots, just random bird observations of any number of any species arbitrarily given a 500 foot buffer.

How did you determine these points to be a measure of "important bird habitat"? The points you circled indicate that birders use the area, but in themselves nothing about the numbers or types of birds. You need a more specific query of that data source to get the information you need.

And for the record, I don't appreciate being stonewalled on this and other questions. I asked about this several times before because it was obvious then that you had a big problem with your bird habitat ratings and criteria.

Bird habitat is the KEY VALUE of the refuge, and the refuge habitat and use is the KEY SITING CONSIDERATION. It is concerning to see the chaos, poor communication, and lack of understanding of resources, data and its appropriate use, especially after our diligent attempts to point you toward the available data sources.

I should not have had to grill your team repeatedly to get a correct answer. Was your biologist (again?) instructed not to speak? Why did I have to ask so many times? And why was this question not answered before in my communications with DOWL/DOT? Today's meeting again left the impression that the resource staff are muzzled, that information is being withheld or even manipulated. And even when they finally spoke up, their answer indicated that no one on the team understands the data or how to use it and that the various parties – GIS, biologist, NEPA specialist-- are not communicating. That is, well, astonishing. This must not be a high priority project for DOWL.

If you need me to demonstrate with a shared screen, I can show your biology staff a simple way to find ebird observations on seasonal habitat use by flocks of waterfowl. Or one could just read the ebird website. hint: click on explore species, use the key species for that site (Canada Goose, Vancouver Canada Goose, Mallard), set your seasonal and overall date intervals, and bingo-- there it is. Or one could do automated queries, as apparently you had attempted (or someone did this for your group and then wasn't available to show how to use

it?)

In our comments, we also provide a map that shows polygons that represent survey areas from the Armstrong et al Hotspots survey, the other key data source. This shows what areas are associated with the Hotspot survey points indicated in the report. We can provide the raw data table of observation keyed to those areas, as I told your group last year. We can also provide photographs of flocks at some of these locations.

For the Douglas side of the Sunny alignments, it is best to rely on bird use of similar areas of the refuge-- that is also spelled out in our comments and was recommended by Parametrix (see their report)– as that area doesn't have a lot of data.

For the record, DOWL did not answer the question about a whole new set of alignment drawings that were not on the shared map materials until a few days ago via your data portal. Theresa could have opened the portal and displayed the fill footprints for impervious surfaces. These show smaller fill areas at some interchanges, and pilings over the rest, and may be what you actually used for wetland impacts etc. It would have been helpful to share these earlier when we had time to use them, and to explain that these are the areas used to calculate acreages rather than leave us guessing. You apparently consider there is no wetland or other impact from miles of pilings, or even from the larger interchange areas shared earlier.

Catherine Pohl
POB 21168 Juneau, AK 99802 907 586-1272 email: cpohl@hotmail.com

---

From: Morgan McCammon <mmccammon@dowl.com>
Sent: Thursday, April 11, 2024 12:06 AM
To: C Pohl <catherine.pohl@outlook.com>
Cc: PUB-JDNorthCrossing <JDNorthCrossing@dowl.com>; Theresa Dutchuk <tdutchuk@dowl.com>
Subject: RE: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

Hi Catherine,

Thank you for the clarification. We appreciate your attendance at today's small group meeting.

Morgan McCammon
Project Communications Specialist

DOWL

(907) 562-2000 | office
(907) 865-1269 | direct

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From: C Pohl <catherine.pohl@outlook.com>
Sent: Wednesday, April 10, 2024 3:24 PM

To: Matt Robus <mhrobus@gmail.com>; Morgan McCammon <mmccammon@dowl.com>
Cc: Frank Rue <frankrue44@gmail.com>; Alex Wertheimet <alaskawerts@gmail.com>; Bob Armstrong <bob@discoverysoutheast.org>; Bruce Baker <brucehbaker.alaska@gmail.com>; Dan Teske <daniel.teske@alaska.gov>; Dave Gaudet <Dgndogs@gci.net>; Deb Rudis <akwildlife@gci.net>; Diane Mayer <dmayer@gci.net>; Doug Larsen <dlarsen0770@gmail.com>; Jay Nelson <jaywnelson@hotmail.com>; Laurie Craig <lauriecraig@gmail.com>; Michael Stanley <madslaw@alaska.net>; Neil Stichert <neilstichert@hotmail.com>; Richard Carstensen <richard.carstensen@gmail.com>; Ron Somerville <somerville@gci.net>; Ryan Scott <ryannteak@gmail.com>; Schumacher, Tom V (DFG) <tom.schumacher@alaska.gov>; Steve Peterson <spstevepeterson083@gmail.com>; Wright, Brenda <bwrino19@gmail.com>; Margaret Custer <margaret@sealt.org>; Keller, Nina (DOT) <nina.keller@alaska.gov>; Heidemann, Marie E (DOT) <marie.heidemann@alaska.gov>; Gentemann, Christy D (DOT) <christy.gentemann@alaska.gov>; Lockwood, Gregory K (DOT) <greg.lockwood@alaska.gov>; Kolwaite, Douglas S (DOT) <douglas.kolwaite@alaska.gov>; Taylor, Jill A (DOT) <jill.taylor@alaska.gov>; Katie Koester <Katie.Koester@juneau.gov>; Bridget LaPenter <bridget.lapenter@juneau.gov>; Irene Gallion <Irene.Gallion@juneau.gov>; Steven Noble <snoble@dowl.com>; Renee Whitesell <rwhitesell@dowl.com>; Jovie Garcia <jgarcia@dowl.com>; Theresa Dutchuk <tdutchuk@dowl.com>; Ryane Gray <rgray@dowl.com>; Marella Gungob <mgungob@dowl.com>; Michael Horntvedt <mhorntvedt@parametrix.com>; Mike Hall <MHall@parametrix.com>; Denise Koch <Denise.koch@juneau.gov>
Subject: [EXT] Re: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

WARNING: *External Sender - use caution when clicking links and opening attachments.*

Finally, the word on nests vs hotspots. They mislabeled it as nests. And as hotspots. It is just random ebird checklists, though they are calling it ebird hotspots. They don't know what they have for data or how to use it properly.

Total screw up.

Catherine Pohl
POB 21168 Juneau, AK 99802 907 586-1272 email: cpohl@hotmail.com

---

From: Matt Robus <mhrobus@gmail.com>
Sent: Wednesday, April 10, 2024 8:44 PM
To: Morgan McCammon <mmccammon@dowl.com>
Cc: Frank Rue <frankrue44@gmail.com>; Alex Wertheimet <alaskawerts@gmail.com>; Bob Armstrong <bob@discoverysoutheast.org>; Bruce Baker <brucehbaker.alaska@gmail.com>; Catherine Pohl <catherine.pohl@outlook.com>; Dan Teske <daniel.teske@alaska.gov>; Dave Gaudet <Dgndogs@gci.net>; Deb Rudis <akwildlife@gci.net>; Diane Mayer <dmayer@gci.net>; Doug Larsen <dlarsen0770@gmail.com>; Jay Nelson <jaywnelson@hotmail.com>; Laurie Craig <lauriecraig@gmail.com>; Michael Stanley <madslaw@alaska.net>; Neil Stichert <neilstichert@hotmail.com>; Richard Carstensen <richard.carstensen@gmail.com>; Ron Somerville <somerville@gci.net>; Ryan Scott <ryannteak@gmail.com>; Schumacher, Tom V (DFG)

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Subject: Mendenhall Wetlands Study Group comments on PEL Level 2 screening

Good afternoon, Morgan,

On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate.

Thank you for the opportunity to comment.

Matt Robus

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game

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TO: Greg Lockwood, Engineer/Architect
Dept. of Transportation and Public Facilities

DATE: April 11, 2024

FILE: Gastineau Channel Bridge: DOT Second Crossing

SUBJECT: Juneau-Douglas Second Crossing
PEL Draft Level 2 Screening
Project No. SFHWY00299

FROM: Benjamin Mulligan
Deputy Commissioner

PHONE NO: (907) 267-2190

Alaska Department of Fish and Game (ADF&G) has reviewed the Draft Level 2 Scoring Table 2-29-24 and Draft Level 2 Impact Table 3-1-24 for the Juneau-Douglas second crossing Preliminary Environmental Linkages (PEL) study. The proposed Level 2 scoring process ranks crossing alternatives based on the sum of scores assigned to each criterion, which appears incomplete and lacks definitions to support assigned scores. Our comments below are on the scoring system and sectioned into the overall scoring system, environmental scoring, Section 4(f)/(6) resources, and general comments per the screening considerations.

Overall Scoring System

The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.

The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between 0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.

We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.

Environmental Scoring

For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).

Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for 'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.

Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.

Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.

Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.

The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km.[1]

Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.[2]

Section 4(f)/6(f) Resources

The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting,

[1] Goodship, N.M. and R.W. Furness. (MacArthur Green). 2002. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

[2] Flynn Casey, Habitat Biologist, to Kate Kanouse, Southeast Regional Supervisor, Alaska Department of Fish and Game, Habitat Section. Memo: Juneau-Douglas Second Crossing Fish Stream Surveys #SFHWY00299; dated January 10, 2024.

fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'.

By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects:

1. Public access to and within the refuge;
2. Opportunities for hunting waterfowl and fishing within the refuge;
3. Opportunities to recreate in the refuge; and
4. Opportunities for viewing, photography, education, and study of fish and wildlife.

In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.

General Comments

Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.

Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.

We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations.

Thank you for the opportunity to comment on the draft documents. Please contact Habitat Biologist Jesse Lindgren at [redacted] if you have any questions.

Email cc:

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United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
Southern Alaska Fish and Wildlife Field Office
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In Reply Refer to:
FWS/R7/SAFWFO

Mr. Steve Noble
Project Manager
DOWL Engineers
9085 Glacier Highway, Suite 102
Juneau, Alaska 99801

Subject: U.S. Fish and Wildlife Service Comments on the Juneau-Douglas North Crossing Planning and Environmental Linkages Study Level 2 Screening Process (Consultation Number 2023-0041600)

Dear Mr. Noble:

Thank you for the opportunity to comment on the Level 2 screening process for the Juneau-Douglas North Crossing (JDNC) Planning and Environmental Linkages (PEL) Study. The purpose of the JDNC PEL Study is to identify ways to improve the connection between Douglas Island and Juneau, as well as transportation for non-motorized users, and to reduce transportation-related energy consumption. An improved connection between Douglas Island and Juneau should provide alternate access and transportation infrastructure resiliency and decrease traffic pressure on the existing Douglas Island Bridge and its intersections. The Level 2 screening is intended to evaluate the detailed alternatives using a broad range of criteria and considers the estimated costs and impacts to compare and rank the detailed alternatives. It is expected that analyses conducted for the PEL Study and the resulting recommended alternatives will be incorporated into a future National Environmental Policy Act (NEPA) process.

The U.S. Fish and Wildlife Service (Service) has jurisdiction over trust resources in the proposed project area. These include species protected under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Fish and Wildlife Coordination Act. The proposed project could impact migratory birds, bald eagles (*Haliaeetus leucocephalus*), wetland-dependent species, and their respective habitats. We offer the following questions, concerns, and recommendations to maximize conservation outcomes.

Level 2 Screening Process
We offer the following comments on the Level 2 Screening process.

- We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.

  - This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.
  - If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.
  - In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.
- We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically:
  - The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.
  - Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.
  - If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process.
- For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.
- The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives.
- It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public.
- In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?

Preliminary Alternatives

General Comments

- The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts.
  - We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.

- In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved:
  - Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.
  - Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.
  - Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc.

- The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.
- Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.

<u>Avoidance, Minimization, and Mitigation for Service Trust Resources</u>

- The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (*Brachyramphus marmoratus*), black oystercatcher (*Haematopus bachmani*), rock sandpiper (*Calidris ptilocnemis*), short-billed dowitcher (*Limnodromus griseus*), lesser yellowlegs (*Tringa flavipes*), red knot (*Calidris canutus*), California gull (*Larus californicus*), olive-sided flycatcher (*Contopus cooperi*), rufous hummingbird (*Selasphorus rufus*), chestnut-backed chickadee (*Poecile rufescens*), varied thrush (*Ixoreus naevius),* and Vaux's swift (*Chaetura vauxi*). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.

- Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.
- The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.
- Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.

Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?

Thank you for the opportunity to provide technical assistance on this project. If you have any questions or concerns, please contact Sarah Markegard, Fish and Wildlife Biologist, at [redacted] and reference Consultation Number 2023-0041600.

Sincerely,

Douglass M. Cooper
Branch Chief, Ecological Services

SOUTHEAST ALASKA LAND TRUST

Juneau Douglas North Crossing PEL Study Level 2 Screening – Comments

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PEL Study Process

These comments are provided to the Juneau-Douglas North Crossing PEL Study and Technical Advisory Committee on 4/11/24 in response to the request for comments on the application of Level 2 screening detailed in the Level 2 Draft Screening Results and the Level 2 Draft Impact Quantification Table that were presented at a 3/7/24 JDNC PEL Study Joint Advisory Committee meeting.

SEALT has engaged in the PEL Study process since March 2022 by participation on the Technical Advisory Committee (TAC) and provides the following pieces of feedback related to the PEL Study's process and the data sources used to advance alternatives.

Technical Advisory Committee Engagement

SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team. This is a lingering defect in the JDNC PEL Study Process in two ways:

- PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory

committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.

- The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.

Quality of Information and Expertise

In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.

For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.

The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about

potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.

Overview of PEL Study Field Work

Reports from DOWL and Parametrix Field Work

In September 2023, the PEL Study team announced to the TAC that the PEL Study would add field work into the process for Level 2 Screening, with that field work commencing immediately. This feedback is in response to the reports generated by that field work and released to the TAC February 16, 2024:

- Wetland Delineation and Functional Assessment Report (February 2024)
- Intertidal Habitat Survey Report (December 2023)
- Bird and Habitat Surveys Report (January 2024)
- Tier 1 Eelgrass Delineation Report (February 2024)
- Bridge Volume Forecast Memo (February 2024)

Comments relating to these reports follow, with a standalone section for each prepared in the limited time that we have to provide comments before the PEL Study findings are synthesized from the reports.

SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports

It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.

The SEALT Habitat Mapping and Assessment Project includes two significant components:

1. **A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and**
2. **A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.**

The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.

Review of Wetland Delineation & Functional Assessment Report (Feb 2024)

SEALT Review of DOWL Wetland Field Survey Report

SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find **no relation between the wetland survey report and the impact quantification matrix or scores** and **no functional assessment** as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is **no summary of the wetland acreage to be impacted by type and alignment**.

It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.

It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.

We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by

alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.

First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.

Tidal Wetland/Waters Delineation

Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.

Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.

The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.

The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East

alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)

Freshwater Wetlands

Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals. **It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.**

Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.

Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the "missed" area in DOWL's report has significant cover of rusty Menziesia, a shrub classified as "facultative upland" although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.

Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives' alignment crossing Hendrickson Point. Inappropriately considered "FACUP" ("facultative upland," usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.

Given the difficulties of delineation with the USACE's weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL's delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.

We observe, however, that DOWL's impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.

Some of the "missed" areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from "impacted wetland acres" tallies used for comparing alternatives, so this omission is significant and concerning.

While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.

The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ's 2014 mapping were also missed along the Mendenhall Peninsula alignment.

SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.

Lack of Functional Assessments in DOWL's Work

The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.

The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.

The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include

sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.

SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.

Questions

1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?
2. What protocol will DOWL use?
3. Will the alternatives be re-scored using the functional assessments?
4. Will the functional assessments be completed before or after the public comment period opens?
5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?
6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?

Review of Intertidal Habitat Survey Report (Dec 2023)

The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: **"This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."**

SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.

The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft-wide alignment for each alternative, and with few habitat types.

While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:

- For example, the **intertidal crossing distances** given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.
- **Low marsh acreage** in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for **high marsh** as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)
- Special habitats mentioned in the report such as **mussel/rockweed habitat, channels, and deltas** that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.

Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).

High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for

the report's "upper intertidal" do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.

High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.

While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)

It might also be useful in this project area to map "wet high marsh" and/or "ponded high marsh" as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.

It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to -10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?

Review of Bird and Habitat Surveys Report (Jan 2024)

Bird Habitat

The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.

Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.

DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.

The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.

The PEL bird habitat impact rating shows “0”s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.

How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from “hotspots”. Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound *if applied correctly* and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.

If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The ‘points’ represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.

For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional

observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.

Fish Habitat

Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."

Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.

These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.

In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. **Every crossing alternative would disrupt one or more anadromous fish streams**. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.

Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.

The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the

Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.

The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.

Mammal Habitat on Hendrickson Point

The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.

The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.

SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.

The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.

The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.

Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. **This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor.** While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.

Review of Tier 1 Eelgrass Delineation Report (Feb 2024)

Introduction

The “Introduction” starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.

While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report’s introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.

Previous Investigation

The “Previous Investigation” section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the “Previous Investigation” section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.

Methods

A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.

Results

The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For

the purpose of this review, a revised results table with the needed tidal information in italics is shown below.

Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.

While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.

Correction for Table 2: Alignment Traverse and Tide Stage

Alignment	Date (2023)	Start Time	End Time	*Tidal Stage During Survey*	*Low Tide*	
Mendenhall	September 28	6:01 PM	6:48 PM	Ebb	*~.5 to -1*	*(LT -1.38 at 7:17 PM)*
	September 29	5:12 PM	6:06 PM	Ebb	*~7 to 2.5*	*(LT -2.7 at 7:59 PM)*
Sunny Point W	September 29	9:23 AM	10:51 AM	Flow	*~2 to 10*	*(LT -2.29 at 7.33 AM)*
Sunny Point E	September 29	10:09 AM	12:09 PM	Flow	*~4.5 to 15+*	*(LT -2.29 at 7.33 AM)*
Vanderbilt	September 27	5:40 PM	5:48 PM	Ebb	*~1.5 to 1*	*(LT .49 at 6:32 PM)*
	September 28	8:16 AM	9:05 AM	Flow	*~0 to 2.5*	*(LT -2.11 at 6:53 AM)*
Twin Lakes	September 28	7:06 AM	8:03 AM	Flow	*~-2 to -.5*	*(LT -2.11 at 6:53 AM)*
	September 27	6:01 PM	~6:29 PM	Ebb	*~1 to .5*	*(LT .49 at 6:32 PM)*
Salmon Creek	September 27	~6:29 PM	6:40 PM	Flow	*~-1 to .5*	*(LT .49 at 6:32 PM)*
	September 28	9:06 AM	10:01 AM	Flow	*~2.5 to 7*	*(LT -2.11 at 6:53 AM)*

Maps

The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.

The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.

While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.

In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.

- Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.
- The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.
- Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel**.**

Even with some eelgrass on the Falls Creek delta, **the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.**

Review of Bridge Volume Forecast Memo (Feb 2024)

DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores.

The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts. A summary:

- A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).
- **After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040**, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.
- By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.
- The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.

It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.

Level 2 Screening: Process & Methodology

PEL Study Should Be Data- As Well As Process-Driven

- Well-defined and transparent public process
- Coherent and defensible data-based results
- Not meant to circumvent regulatory responsibilities
- Communication to and understanding by stakeholders and technical advisors

These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.

In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.

Screening Elements from 2022-2023 Missing in 2024

DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, **DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.**

- "High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.
- For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.

- The score for “Important Migratory Bird Habitat Impacted” would have been determined by the acreage of habitat impacted by construction.
- For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.
- “Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.
- “Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.
- The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.

Scoring Methodology

No Build

We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.

However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.

Scoring a No Build alternative at 0 for criteria such as "Avoid, minimize, and mitigate negative impacts to the environment" is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.

Weighting the Criteria

It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.

Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.

The Need for Granularity

The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.

The range of -2 to +2 lumps *moderate impacts* with *severe impacts*, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.

Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion "Avoid, minimize, and mitigate impacts to the environment" scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL's current scoring to see that difference.

In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).

Level 2 Screening: Conflicts Between Alternatives and Existing Plans

With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.

1. **Mendenhall Wetlands State Game Refuge Management Plan**: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.
2. **USACE Mitigation Plans**: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.
3. **2013 CBJ Comprehensive Plan**:
    i. The alternatives located within the Refuge's boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states *"To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."*
    ii. The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the

Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.

iii. As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.

iv. Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.

4. **Lemon Creek Area Plan**: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.
5. **Marjory and Edgar Huizer Fishing Access Site Management Plan**: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.
6. **Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2**: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "…*may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until:*

"(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an

alternative other than a Sunny Point alternative; and
"(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record.
"Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law."

There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.

Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.

Impacts from Alternatives

SEALT's Functional Assessments

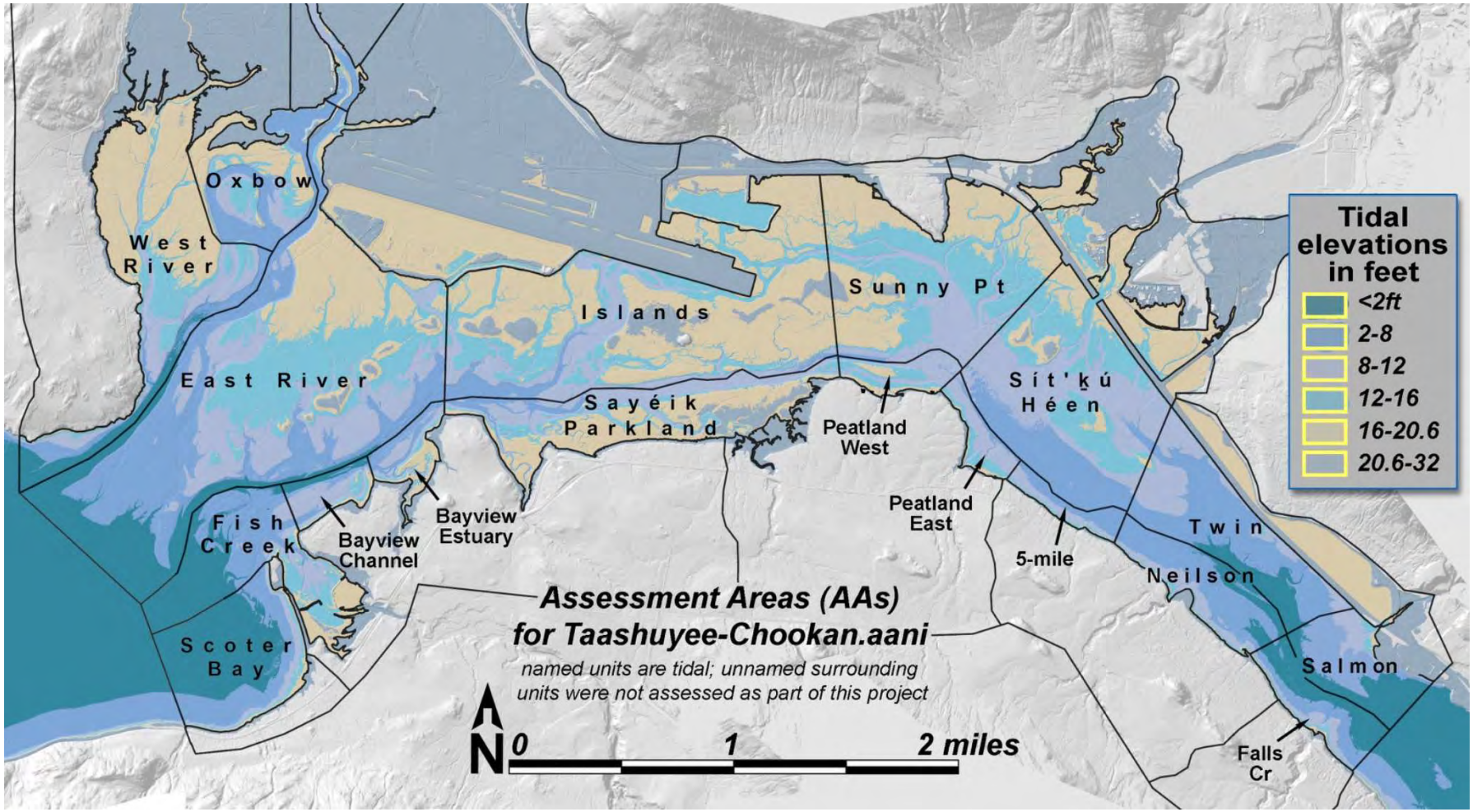
The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.

For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershed-based areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.

Table 1: WESPAK-SE Protocol - Functions and Values

Function or Attribute	Definition	Values
Sediment Retention & Stabilization	The effectiveness for intercepting and filtering suspended inorganic sediments thus allowing their deposition, as well as reducing energy of waves and currents, resisting excessive erosion, and stabilizing underlying sediments or soil.	Maintain quality of receiving waters. Protect shoreline structures from erosion.
Carbon Sequestration	The effectiveness for retaining both incoming particulate and dissolved carbon and converting carbon dioxide gas to organic matter (particulate or dissolved), and then retaining that organic matter on a net annual basis for long periods while emitting little or no methane.	Reduce risk of global climate change.
Organic Nutrient Export	The effectiveness for producing and subsequently exporting organic nutrients (mainly carbon), either particulate or dissolved.	Support food chains in receiving waters. Facilitate transfer of iron to marine waters.
Anadromous Fish Habitat	The capacity to support rearing or spawning habitat of fish species that migrate from marine waters into freshwater streams to spawn, e.g., coho/sockeye.	Support commercial, subsistence, sport, and ecological values. Infuse uplands with marine nutrients.
Waterbird Feeding Habitat	The capacity to support or contribute to an abundance or diversity of waterbirds that migrate or winter but do not breed in the region.	Support subsistence, sport, and ecological values. Maintain regional biodiversity.
Songbird, Raptor, & Mammal Habitat	The capacity to support or contribute to an abundance or diversity of native songbird, raptor, and mammal species and functional groups, especially those that are most dependent on wetlands or water.	Maintain regional biodiversity.
Native Plant Habitat	The capacity to support or contribute to a diversity of native, hydrophytic, vascular plant species, communities, and/or functional groups.	Maintain regional biodiversity and food chains.
Public Use and Recognition	Prior designation of the wetland, by a natural resource or environmental protection agency, as some type of special protected area. Also, the potential and actual use of a wetland for low-intensity outdoor recreation, education, or research.	Commercial and social benefits of recreation. Protection of prior public investments.
Subsistence and Provisioning Services	The “customary and traditional” uses of wild resources for various uses including food, shelter, fuel, clothing, tools, transportation, handicrafts, sharing, barter, and customary trade.	(this is an attribute, not a function or value).
Wetland Sensitivity	A wetland's lack of intrinsic resistance and resilience to human and natural stressors.	(this is an attribute, not a function or value).
Stress Potential	The degree to which a wetland is or has recently been altered by or exposed to, risk from factors capable of reducing one or more function, primarily human-related.	(this is an attribute, not a function or value).

Figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas



Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.

Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.

As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.

Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas

Crossing Site--	Mendenhall Pen.		Sunny Pt E and W		Vanderbilt		Twin Lakes		Salmon Creek	
Assessment Area--	W River	Scoter Bay	Sunny Pt.	Peatland Pt W	Sit Ku Heen	5 Mile	Twin	Neilson	Salmon Ck	Falls Ck
WESPAK-SE overall	10.98 H	8.36 H	10.17 H	8.56 H	9.99 H	9.31 H	8.30 H	8.69 H	7.13 H	7.61 H
(vegetated tidal)										
waterbird feeding	10 H	10 H	10 H	10 H	10 H	10 H	10 H	10 H	9.71 H	10 H

Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.

While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.

The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by

the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.

At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.

WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G-nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.

Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.

The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.

Impacts to Wetlands

False Precision in DOWL's Calculations

The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.

The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.

Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).

This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.

ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.

SEALT Calculations of Impacts to Habitat by Alternative

In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.

Figure 2: Acreage of Impacts by Alternative

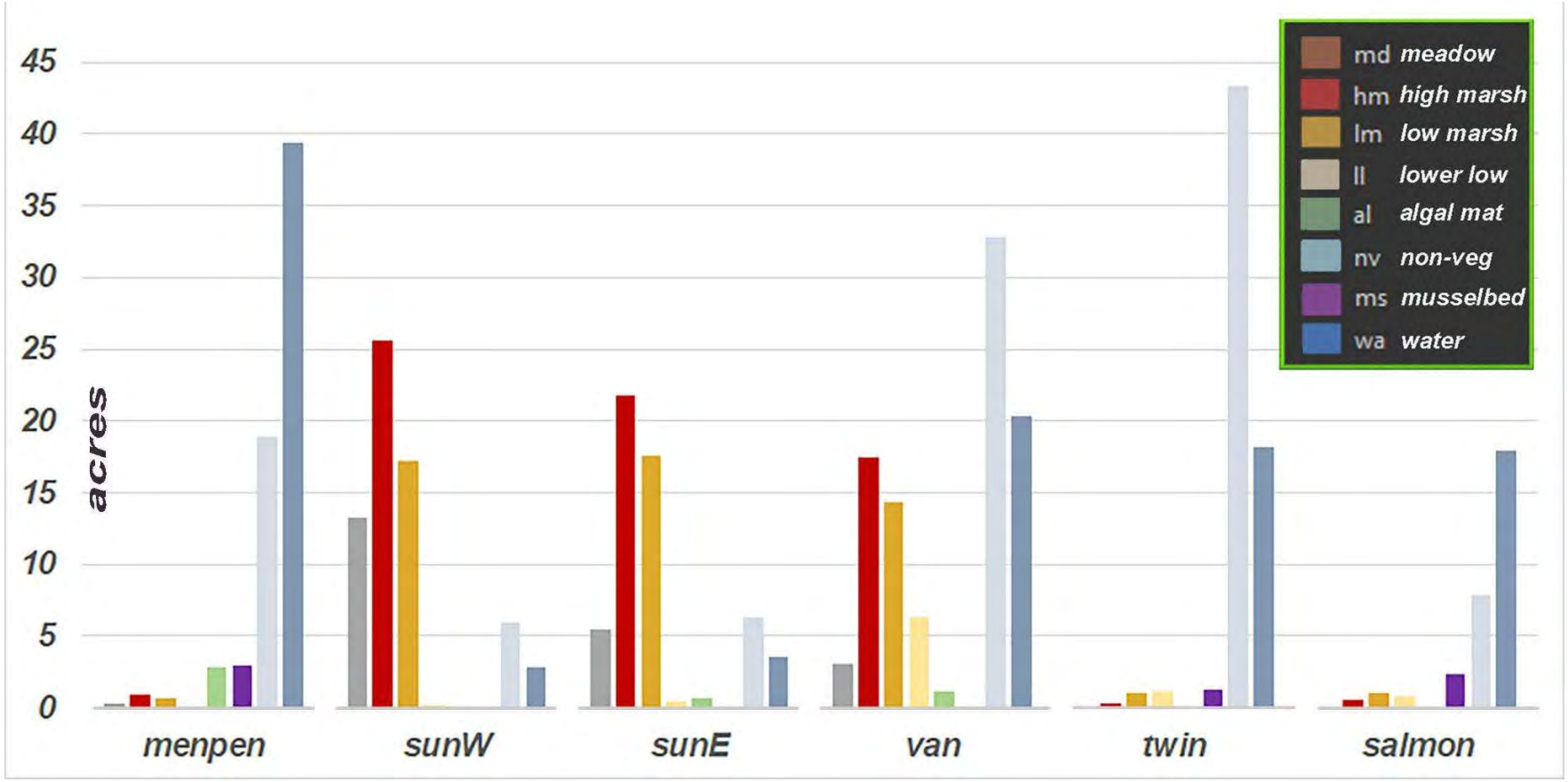


Figure 3: Percentage of Habitat Impacts by Alternative

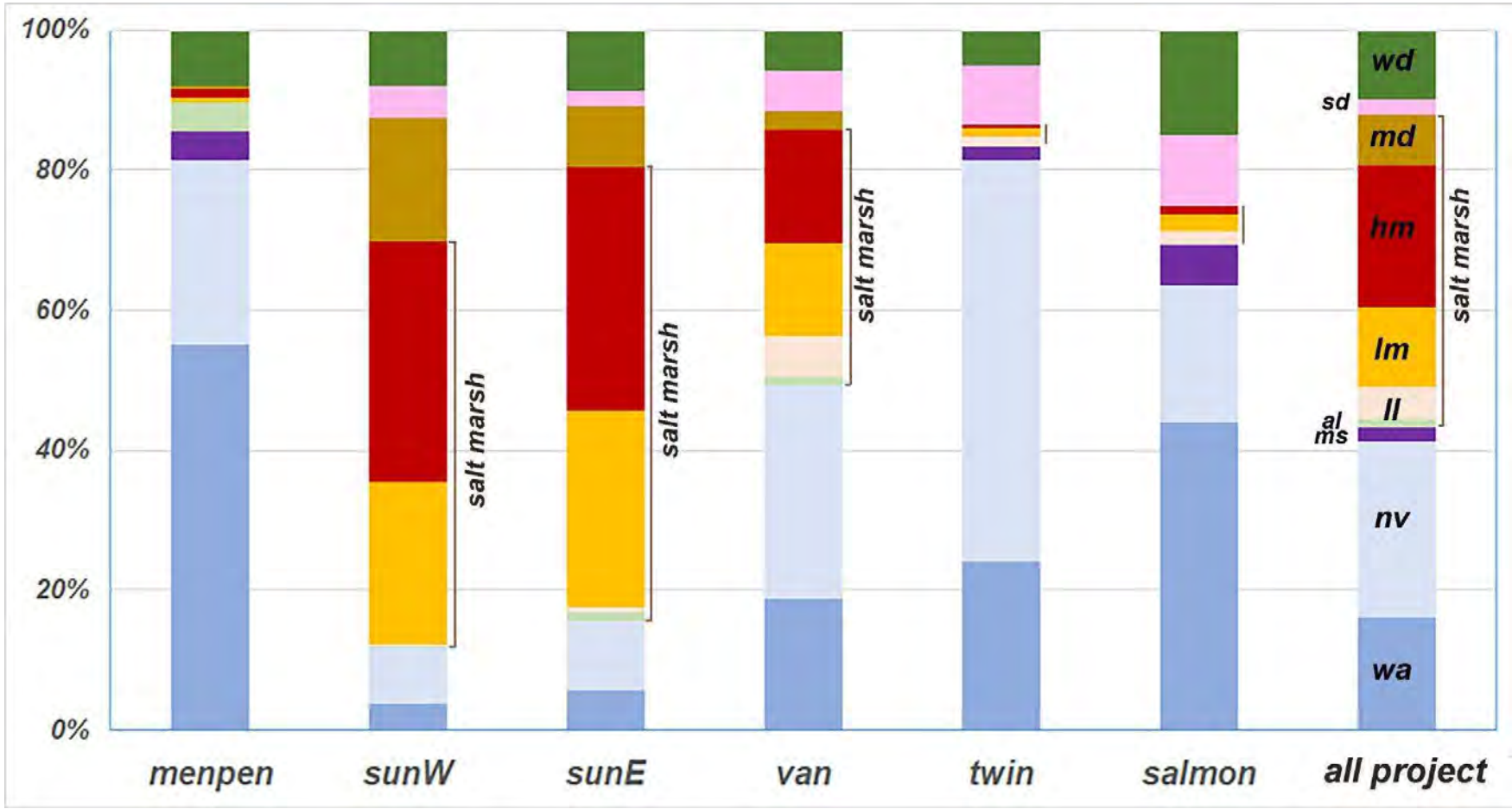


Figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map

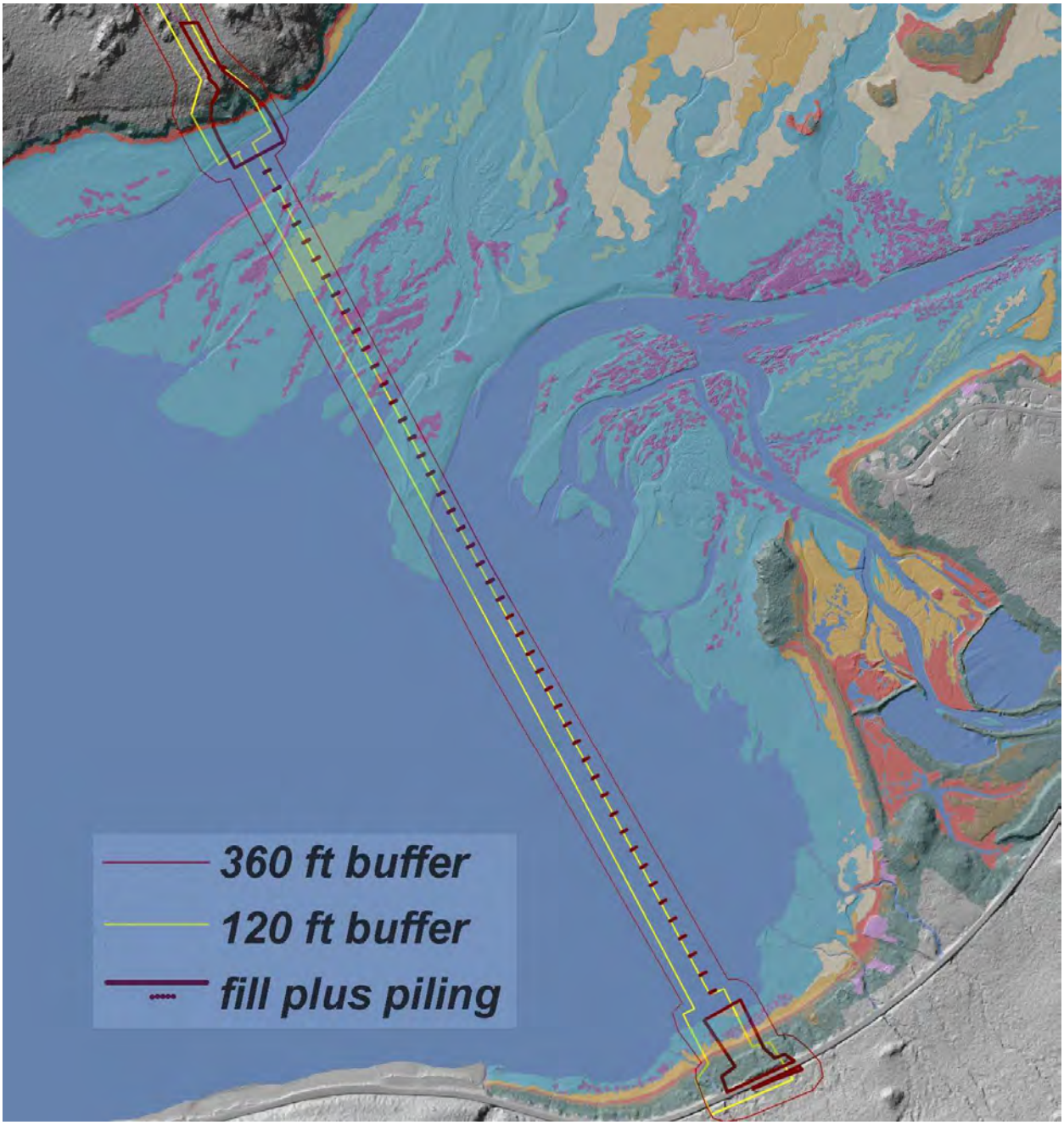


Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map

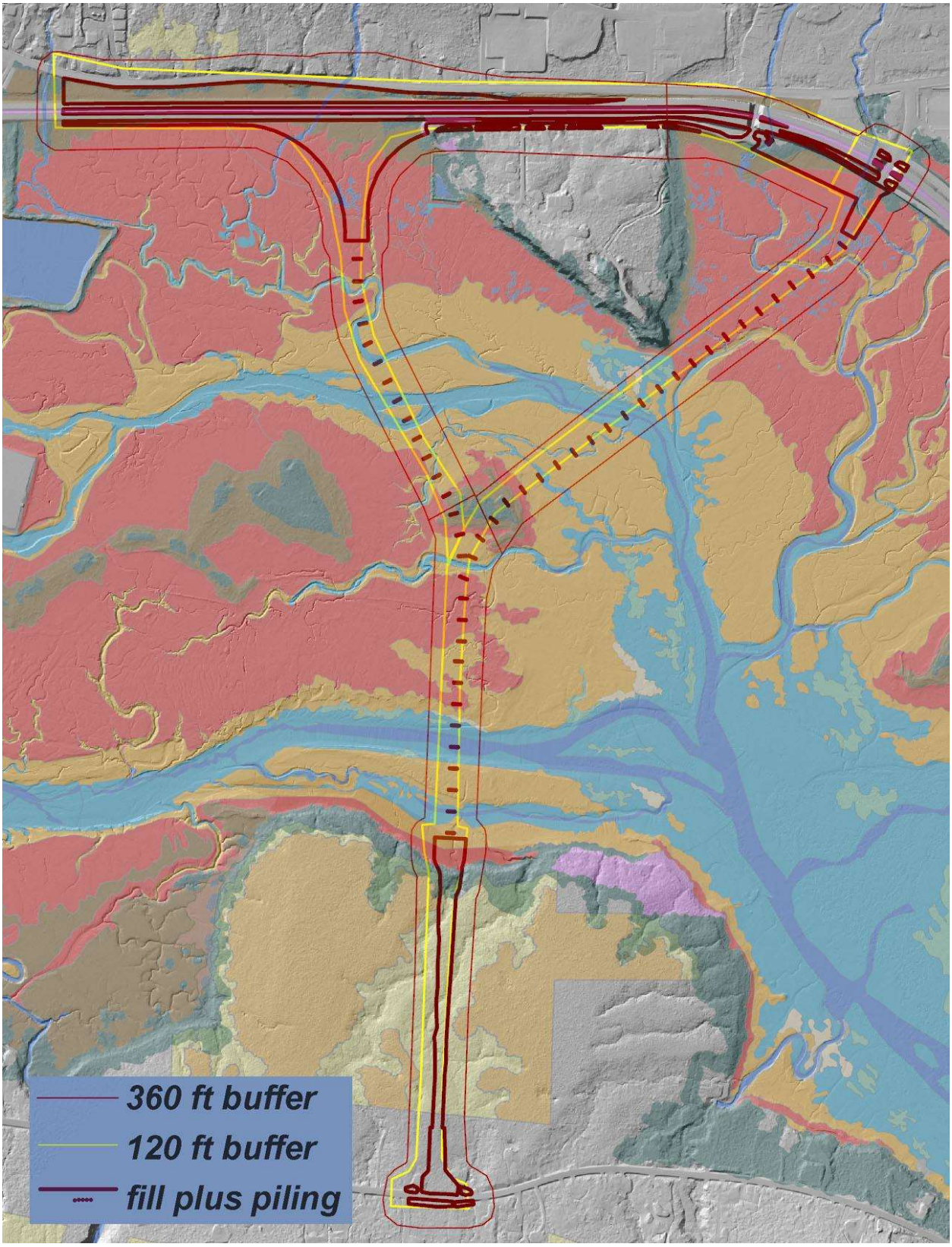


Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map

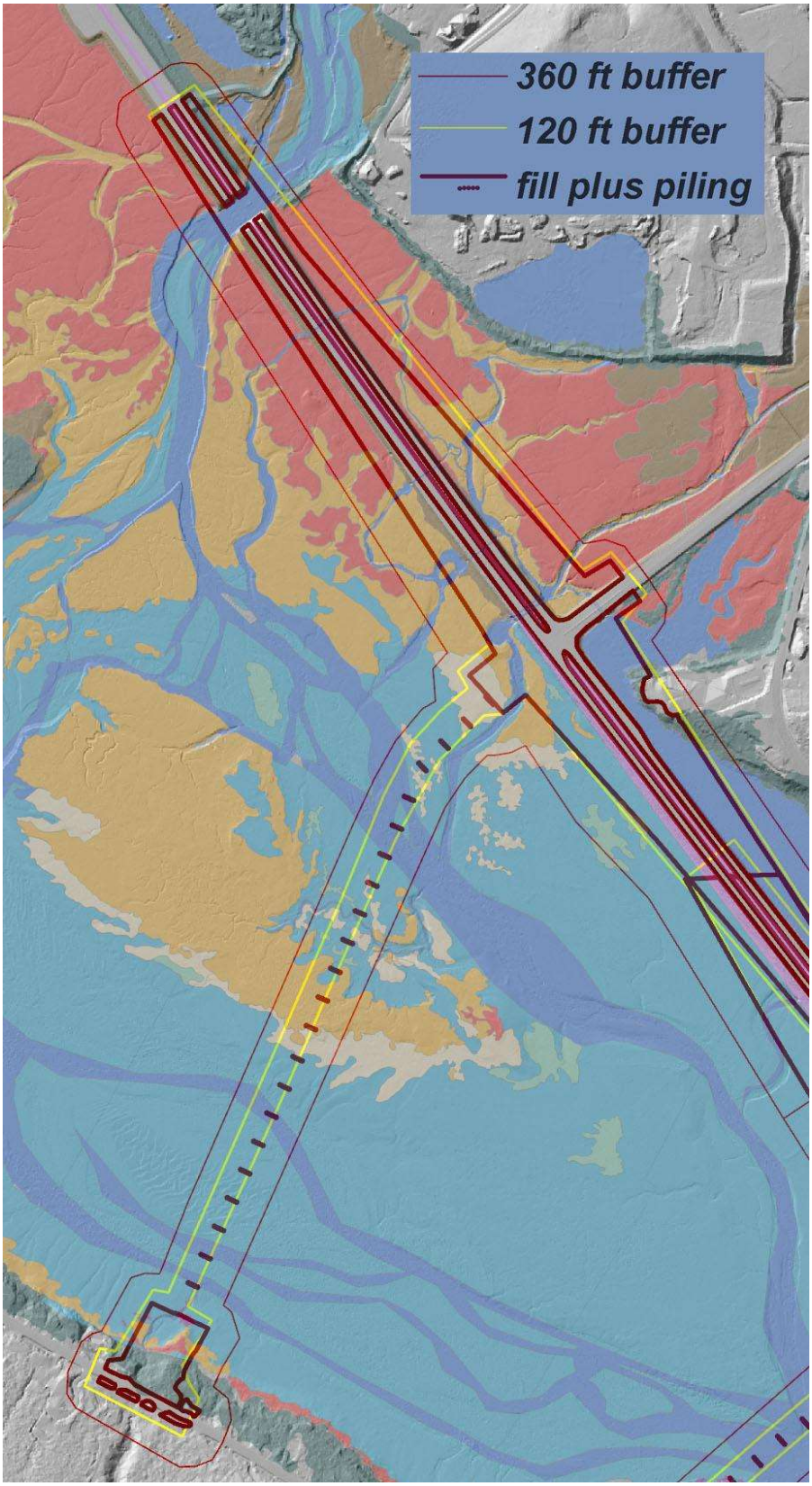


Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map

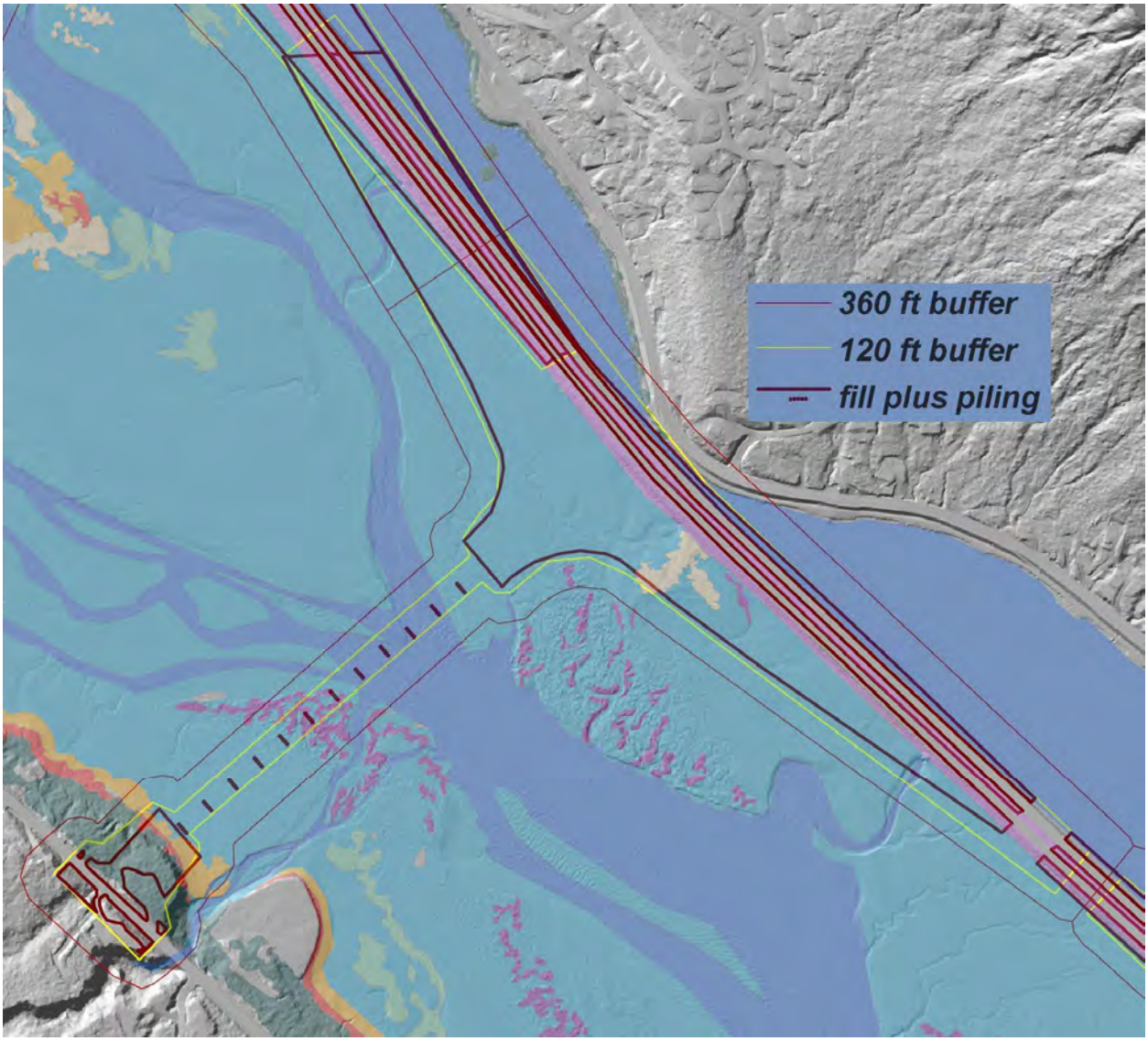
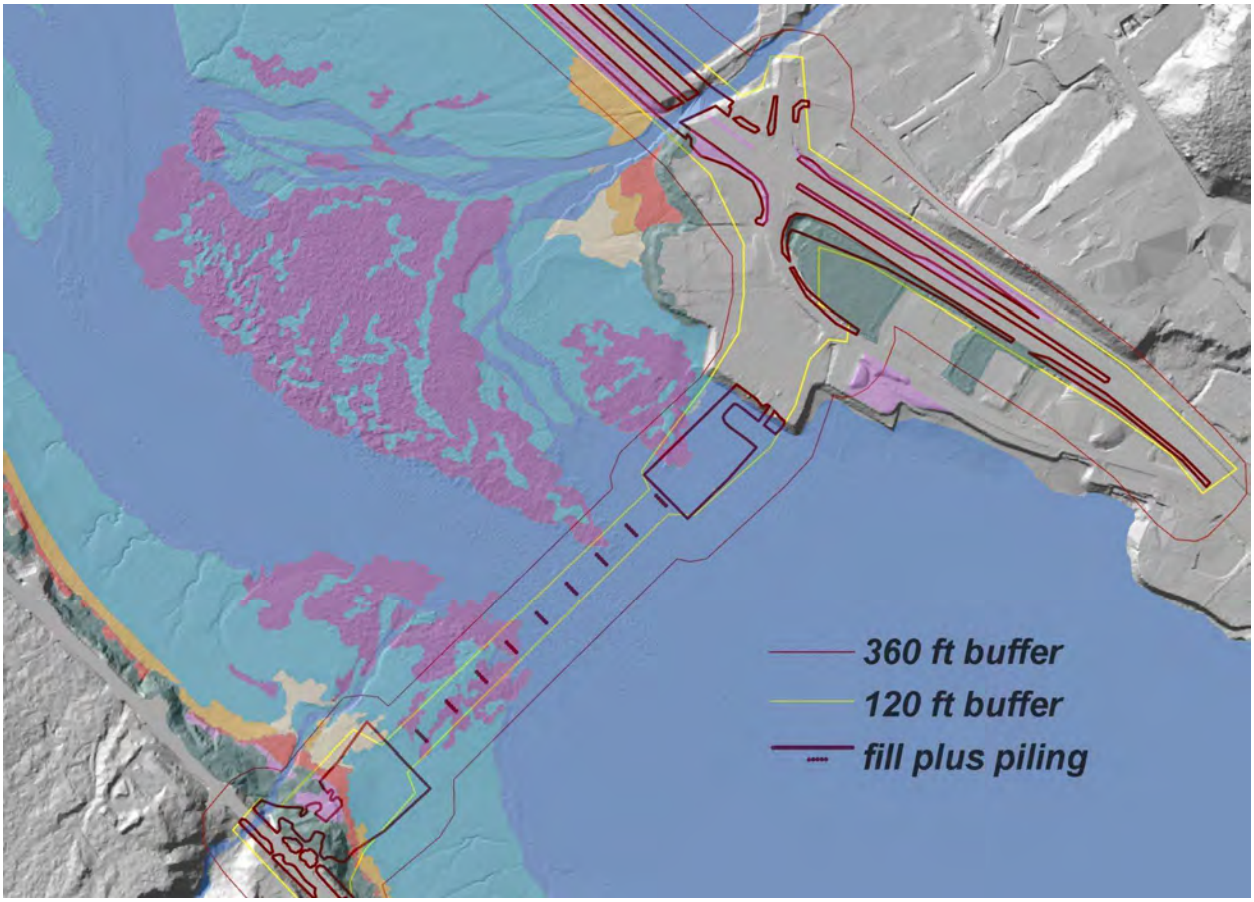


Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map



Impacts to Wetlands Owned and Stewarded by SEALT

All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.

It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.

The possible impacts from the most harmful remaining alternatives are summarized here.

Sunny Point East

The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

Sunny Point West

The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.

The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.

Salmon Creek

The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.

Mendenhall Peninsula

The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.

SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.

Impacts to Bird Habitat Not Considered by DOWL

All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.

Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.

It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.

The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.

The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.

The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.

The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.

The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.

It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.

For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.

eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.

"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.

Salmon Creek

The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck

hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.

Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the delta-edge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).

Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).

Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.

Twin Lakes

The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for

Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).

The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.

The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.

Vanderbilt

The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or "Pioneer") marsh, noted

above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).

The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).

The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this little-disturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).

The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area’s function as “refuge within the refuge” would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.

Sunny Point East, Sunny Point West

The Level 2 Screening bird habitat rating of the Sunny Point East alignment is “0” - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys,

but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).

The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.

The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.

In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.

At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at

Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).

With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.

Mendenhall Peninsula

The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Amstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.

Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.

It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud,

barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.

The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow's and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Red-breasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a "floating boundary."

To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).

To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as "second tier" hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually "top tier"), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).

On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a "top winter season hotspot" with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)

Miscellaneous Issues

Aviation Safety Resulting From Impacts to Bird Habitat

Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.

Impervious Surfaces

Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.

Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.

Public Support

DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:

- Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.

- From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.
- In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.
- It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.

DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.

Costs and Mitigation

Costs

DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.

1. Did these estimates consider repairs to the existing bridge?
2. How will maintenance change for existing roads on the mainland and Douglas Island?
3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates?
4. Did the estimates consider additional lanes for a new bridge as part of this?
5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?

Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.

Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.

Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.

Mitigation

The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.

As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.

SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate

criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.

While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.

However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report:

1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands.
2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly.
3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.

Conclusions and Recommendations

Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.

Outstanding Concerns

- The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.
- “Avoid, minimize, and mitigate negative impacts to the environment” should be a core goal of the PEL Study rather than an “additional goal”.
- The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without

vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.

- The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.

Additional Criteria

Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.

1. **"Low Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
2. **"High Marsh" Wetlands Impacted (Natural)** - impacts to high value salt marsh
3. **Fishing (Social)** - impacts to sport fishing according to ADF&G
4. **Hunting (Social)** - impacts to waterfowl hunting according to ADF&G
5. **Recreation (Social)** - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation
6. **Cultural Uses (Social)** - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests
7. **Aviation Approaches (Safety)** - impacts to aircraft approaches according to FAA
8. **Aviation Facilities (Safety)** - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA
9. **Navigability of Gastineau Channel (Safety)** - impacts to navigability for each alternative according to USCG
10. **Mitigation Site Replacement (ROW)** - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures
11. **Protected Lands Replacement (ROW)** - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures

Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini.

Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.

Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.

Ranking of Alternatives

The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.

1. No Build
    a. **All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex.**
    b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the far-reaching material impacts to those resources from bridge construction in a cost-benefit analysis.
    c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement.
    d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.
2. Salmon Creek
    a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points

b. Minimal functional impacts to SEALT mitigation sites
c. Fewer regulatory and permitting requirements for impacts to protected resources
d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek
e. Lower mitigation costs
f. Shortest intertidal crossing and use of existing interchange reduce impacts

3. Twin Lakes
    a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant
    b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources
    c. Would shut down important waterfowl hunting areas on the Refuge
    d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini
    e. Moderate to high mitigation costs
4. Vanderbilt
    a. More damaging to salt marsh, habitat connectivity, and Refuge integrity
    b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area
    c. Moderate functional impacts to SEALT mitigation sites
    d. Would shut down important waterfowl hunting areas on the Refuge
5. Mendenhall Peninsula
    a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex
    b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts
    c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.
6. Sunny Point West
    a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.

d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.

7. Sunny Point East
    a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites.
    b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent.
    c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge.
    d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study.
    e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration.

Recommendations to PEL Study Team and Future Second Crossing Project Reviewers

- In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.
- The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.
- This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.

Citations

Alaska Shorebird Group. 2019. Alaska Shorebird Conservation Plan. Version III. Alaska Shorebird Group, Anchorage, AK.

Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003, Juneau Audubon Society and Taku Conservation Society, 2004. Juneau, AK.

Armstrong, Robert H., Carstensen, Richard L., Willson, Mary F., Hermans, Marge, 2009. The Mendenhall Wetlands: An Important Bird Area, Nature Alaska Images, Juneau, AK.

Bosworth Botanical Consulting. 2024. SEALT Habitat Mapping and Assessment Project Report (Draft, Proprietary). Juneau, AK.

Bosworth Botanical Consulting. 2024. SEALT Taashuyee-Chookan.ani Wetland Functional Assessment Report (Draft, Proprietary). Juneau, AK.

eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, NY. Available: http://www.ebird.org.

Comment Number	Comment	Response	Commentor	Responder	PDF Page	Document	Location	Notes
1	Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores. We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).	Understood. A NEPA analysis would provide opportunity for more robust data collection. The PEL study is a planning level evaluation and assesses impacts based on publicly available data sources. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
2	The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.	The PEL study team has used the best available data and limited field studies to score the Level 2 screening.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
3	Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.	The SEALT wetland delineation is not publicly available. The PEL study team updated the wetland mapping to reflect current conditions, the resulting data is used in the Level 2 scoring.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
4	Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
5	SEALT mitigation property impacts – ensure these are accurate.	The PEL study team has reviewed the SEALT mitigation property impacts and confirmed the findings.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
6	Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)	EFH impacts were removed following the recommendation from NOAA Fisheries.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
7	Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.	A more detailed evaluation of impacts and fish habitat will be undertaken during a NEPA analysis.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
8	Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
9	Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process. The direct impacts will be clarified and buffers will be stated, when used.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
10	With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2. We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. "Dealbreakers" may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				

11	Potential categories for consideration: o PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.) o North Douglas Connection o Environmental impacts o Safety (include airport, Coast Guard) o Residential impacts o Visual, cultural, scenic identity o 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves) o Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves) o Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties) o Social impacts (add recreation impacts) o Cost o Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)	More detailed review of impacts would be undertaken during a NEPA analysis. The current impact categories have been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
12	Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.	Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
13	Negative scoring on No Build Alternative, and zero scoring on impacts. The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system. In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
14	A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.	A mapper of the alternatives and the environmental resource layers has been made publicly available.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
15	Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).	The Final PEL Study Report will reflect the structure types evaluated in the PEL study.	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
16	Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.		Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
17	Please share all comments submitted by members of the Advisory Committees and the public.	The comments will be shared with the Level 2 Screening Memo	Rebecca Belmore, Southeast Alaska Watershed Coalition	Theresa Dutchuk, DOWL				
18	The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward. The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
19	We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.	The Final PEL Study Report will reflect the structure types evaluated and assumptions (such as pilings) made in the PEL study.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				

20	We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
21	As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.	N/A	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
22	Salmon Creek scores + 1 point for transportation infrastructure resilience whereas the other options all score + 2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.	This criteria was removed from the Final Level 2 scoring.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
23	All of the alternatives score equally for decreasing traffic on the existing bridge, at + 1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.	These scores were updated to reflect the volume of vehicles that would choose an alternative crossing. Alternative that had a higher percentage to likely choose them now score higher under this criteria.	Michael Stanley, North Douglas Neighborhood Association	Renee			Purpose & Need	
24	Twin Lakes and Salmon Creek score + I for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure ... " Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.	These scores were updated to reflect that all alternatives except Mendenhall Peninsula would provide on average up to 65 second travel time savings (the largest time savings).	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Purpose & Need	
25	All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.	This score is based on the cumulative score of all environmental criteria (sum of scores in the "natural" category). Following edits to the scoring, this criteria was update to reflect the cumulative Final Level 2 scores for the natural environment.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Additional Goals	
26	The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 - meaning no adverse impacts - which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.	Indirect impacts will be reviewed in greater detail during a future NEPA evaluation. This PEL study is focused on evaluating direct impacts, while sometimes including buffers, for the planning and screening level analysis. The difference in scoring on the Vanderbilt and Salmon Creek crossings versus the Sunny Point alternatives reflects the focus on direct impacts.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Additional Goals	
27	Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to '"directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing- including air and noise pollution - were among those considered in the evaluation of crossing locations.	The differences in level of impact from for Sunny Point East and Sunny Point West are largely due to the intersection build out on the Egan side required for Sunny Point West. Sunny Point East would connect at an existing intersection requiring less of a build out for the intersection and therefore less ground disturbing impact. The PEL study team acknowledges indirect and cumulative impacts may exist for alternatives. Indirect and cumulative impacts would be evaluated during a NEPA analysis. Air and noise pollution would be evaluated during a NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	

28	Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
29	All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.	There are more 4(f) resources in the PEL study area than the MWSGR. Each resource was treated equally. The scores reflect the number of 4(f)/6(f) resources that each alternative directly impacts.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
30	The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.	The criteria listed in this comment as (1) and (2) are correct if a future project undergoes a 4(f) individual analysis. It is unclear what level of 4(f) analysis a future project would undergo, whether that be exception, de minimus, or individual analysis. Each level of analysis has differing criteria.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Environmental Considerations	
31	The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association				Social Considerations	
32	One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.	Additional consideration of recreational use of the MWSGR and other park areas would be undertaken during a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL			Social Considerations	
33	These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The.first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.	There are various types of impacts that can occur to residential and commercial properties, as reflected in the scoring. The scoring differentiates between full or partial parcels counts and acreage amounts, and occupied or vacant land	Michael Stanley, North Douglas Neighborhood Association				Housing and Economic Considerations	
34	The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.		Michael Stanley, North Douglas Neighborhood Association				Safety	
35	More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.		Michael Stanley, North Douglas Neighborhood Association				Safety	

36	The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road: [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose. The Level II screening analysis failed to pay heed to this request.	The bench road concept is not considered in this analysis. It may be considered in a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association				Safety	
37	The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.	The public mapper provided by DOWL provides an opportunity for individuals to see where the alternatives are proposed to land on both the Juneau and Douglas sides of the study area. https://gis.dowl.com/portal/apps/instant/portfolio/index.html?appid=85cb7911192e4c7a94568f629f3aa9c0	Michael Stanley, North Douglas Neighborhood Association				Right-of-Way	
38	The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a fom1al survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.	Agree, and 'comments received' was an erroneous description of the measure of public support. The public support was based on an objective survey as described in the scoring table rationale.	Michael Stanley, North Douglas Neighborhood Association				Public Support	
39	NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas - much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau - but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.	Comment noted	Michael Stanley, North Douglas Neighborhood Association	Theresa Dutchuk, DOWL				
40	I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel). I hope this helps when updating the EFH layer in this public-facing mapping tool.	This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study. I hope that my misunderstanding about the mapper does not lead you to think we didn't understand your overall messages.	Molly Zaleski, NOAA Fisheries	Theresa Dutchuk, DOWL			EFH - GIS Map	

41	The acreage is not correct. SEALT owns and manages wetland mitigation sites set aside for the Juneau Airport's expansion in 2009 that would be impacted by both the East and West Sunny Point alternatives at the Juneau and Douglas termini. She added that the Sunny Point West alternative does not avoid impacts and requires an additional extension of road parallel with Egan Drive that directly crosses a SEALT mitigation site. She has identified these impacts in two different comment letters, but DOWL's reports and scoring tables continue to assert that there are no impacts at Sunny Point West, and minimal impacts at Sunny Point East. She asked when a consultation will occur where SEALT can confirm the correct impact acreage.	The study team verified the acreages are correct.	Southeast Alaska Land Trust (SEALT)	Theresa Dutchuk, DOWL	6	TAC/STAC Virtual Meeting 5	1st paragraph	
42	Where were impacts for Salmon Creek quantified?	Steve responded that the impacts for all the alternatives are quantified in the documents that were distributed as part of Level 2 Screening in the impacts table. Renee added that the results in the impact table fed directly into the scoring process to enable scores to be assigned. Steve noted that the team would be happy to pull up the GIS database and have a conversation if there were additional questions.	Environmental Protection Agency (EPA)	Steve Noble, DOWL Renee Whitesell, DOWL	6	TAC/STAC Virtual Meeting 5	2nd paragraph	
43	She noted that mapping in the wildlife fish figure is misleading, stating that essential fish habitat text descriptions should be used to back up mapping. She commented that every alternative will impact fish habitat and additional study should be done on impacts to prey species, including herring, dolly varden, and trout. She would include a link in the chat with more resources for text descriptions and contact information. She would like early coordination to avoid data gaps.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	1st paragraph	
45	A disservice has been done to the Mendenhall Wetlands State Game Refuge (Refuge) by not displaying the boundaries in project materials.	The MWSGR boundaries have been added to project materials.	ADF&G	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	2nd paragraph	
46	Clarification on the acreages shown for the Sunny Point alternatives	N/A	ADF&G	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	6th paragraph	
47	Given the importance of estuarine wetland functions and the requirements for protection nationally, regionally, and in the setting of a public wildlife refuge, estuarine wetland acreage should be tallied separately. She stated both footprint within the displayed alignment strip and affected acreage beyond that (for example from drainage changes caused by fill, shading from a structure, or compaction and erosion from construction) should be included in the decision matrix, and that freshwater emergent and forested wetland acreage should be included separately. She noted it appears the Sunny Point alternatives potentially impact the highest acreage of estuarine wetlands, followed by Vanderbilt, and Sunny Point would also potentially impact the highest acreage of freshwater emergent palustrine wetlands. She asked why fill acreages are so different between East and West Sunny Point. She asked how tidal acreages were calculated, and why more was not measured at Sunny Point and Vanderbilt alternatives. She commented the wetland and resource acreage within the reports seem inconsistent the best data available. She added 4(f) resources affected should be reported by acreage within the alignment strip displayed, and there should be consideration of effects on 4(f) resources outside the displayed alignment strip. She continued that this should include the size of the overall 4(f) and the location of the disrupted area within it, noting that crossing through the center of a large refuge affects more users and more wildlife. She stated the PEL study report titled "Wetlands Delineation and Functional Assessment Report" does not include any functional assessments, and the delineations are not complete. She commented that the report leans heavily on NWI to fill in gaps in the surveys, which is unreliable for Alaska. She asked when DOWL was planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan, and what protocol would be used.	Wetland functions and values have been added to the Level 2 Screening.	SEALT	Theresa Dutchuk, DOWL	7	TAC/STAC Virtual Meeting 5	Last paragraph page 7, first paragraph page 8	
48	Both Sunny Point alternatives are underestimating impacts to essential fish habitat because of the way that metric was calculated	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa Dutchuk, DOWL	8	TAC/STAC Virtual Meeting 5	2nd paragraph	
49	Is the table showing public support and comments received for each alternative was depicting the number of comments in favor of the alternative, number of comments opposed, or comments generally?	The public support measure is the number of survey respondents who indicated supported for alternatives from the public comment survey sent out after Open House No. 2. Over 1,000 people responded to that survey, and participants were able to indicate support for more than one alternative	CBJ Assembly	Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	3rd paragraph	
50	Clarification on the definitions for wildlife habitat in environmental screening and important migratory bird habitat.	At the recommendation of the DOT&PF Statewide Environmental Office, "important migratory bird habitat" has been changed to reflect within the boundaries of the refuge. Wildlife habitat is classified as anywhere wildlife may be.	ADF&G		8	TAC/STAC Virtual Meeting 5	4th paragraph	

51	If there have been conversations about how criteria are weighted during scoring, including more qualitative information. She noted there are five criteria related to residential impacts and one criterion related to safety, which infers that residential impacts would be weighted more heavily than safety.	The study team worked through the screening criteria and presented it to the advisory committees, the DOT&PF Statewide Environmental Office (SEO), and other agencies throughout the process. He added screening criteria has been adjusted based on feedback and encouraged further feedback from participants. He noted there are more environmental criteria than other criteria. Renee added the scoring evaluation process will help the team recommend which alternatives could move forward into the NEPA process, and there are a lot of environmental impacts that need to be considered for each of the alternatives. She also encourages feedback from participants on improvements to scoring criteria.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	5th paragraph	
52	It would be helpful to score recreational impacts, especially hunting. Steve responded	The project team has incorporated recreational impacts into scoring. Renee added she would find more specific information.	ADF&G	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	6th paragraph	
53	Transparently scoring different categories (e.g. environmental, residential, safety, traffic improvements, etc.) individually would be helpful	Unclear on this comment. The PEL study team has scored categories individually and provided scores and justifications/rationale to provide transparency on the thought process.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL Renee Whitesell, DOWL	8	TAC/STAC Virtual Meeting 5	7th paragraph	
54	Why aviation safety is not listed as criteria under transportation safety, noting that if aviation safety is important, it merits a score?	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	SEALT	Steve Noble, DOWL	8	TAC/STAC Virtual Meeting 5	8th paragraph	
55	The difference between the approaches and the bridge structures shown in the footprints on the maps and asked for clarification on how far out into the wetlands the approaches would extend.	The approaches are in the abutments, and the issue would need to be evaluated in more detail in the NEPA process.	Mendenhall Wetlands Study Group	Steve Noble, DOWL	8	TAC/STAC Virtual Meeting 5	Last paragraph page 8, first paragraph page 9	
56	A publicly available online mapping tool with all the data layers and alternative structure footprints would be very helpful for the advisory committees and public to review these scores and think about impacts more wholistically. She noted difficulty in comparing different PDF maps with spatial data. Steve responded the study team would review and discuss the feasibility of this within the timeline.	The study team would review and discuss the feasibility of this within the timeline.	Southeast Alaska Watershed Coalition	Steve Noble, DOWL	9	TAC/STAC Virtual Meeting 5	3rd paragraph	
57	Essential fish habitat (EFH) is not typically used in and of itself as an acreage metric and does not fit in the way it was used to compare alternatives using acres, rather it is a qualitative presence/absence of EFH species combined with a determination of adverse effects. She added in the analyses of adverse impact, the wetlands and anadromous waters are themselves and more broadly support EFH are sought to be avoided, minimized, and compensated for in their acreage impact. She noted that each alternative adversely impacts EFH and the relative impact as defined by acreage would be more accurately defined by wetland and riparian impact. Further, the quality of that impact would be higher for example, for estuarine wetland fill, as they are functionally more supportive of EFH than forested wetlands.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	Theresa	7	TAC/STAC Virtual Meeting 5	1st paragraph	
58	One participant from the EPA asked if the project team could speak to the 4(f) process.	The purposes of the PEL study, the team identifies what the 4(f) properties are, what they think the potential impacts to 4(f) resources could be and determines if there are ways to avoid or minimize impacts to those resources. He added 4(f) permitting would happen during the NEPA process.	Environmental Protection Agency (EPA)	Steve Noble, DOWL	9	TAC/STAC Virtual Meeting 5	4th paragraph	
59	When the PEL study was expected to be completed and opportunities to comment?	The draft PEL study report was expected to be completed by the end of May 2024, followed by a 30-day comment period and a public open house in June 2024.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Public involvement	
60	how are potential impacts are calculated?	Most potential impacts are measured by acreage and number of resources potentially impacted.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Environmental Considerations	
61	A participant requested information on the type of crossings evaluated being fill versus piling. Steve shared	The study design team assumed crossings on pilings based on feedback received so far and clarified the scoring is premised on this type of crossing structure.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Construction and Design	
62	One participant asked where the newly located Bog/Fen was.	The project team responded that it was shown as the hatched area on habitat mapping.	no name	Project Team	6	In person TAC/STAC meeting 5	Wetlands	
63	One participant asked for clarification on how information gathered during habitat mapping and migratory bird count helps supplement existing data. He emphasized that the report was well written, and the habitat mapping added useful data, but the information presented on bird species presence should not be considered useful as the time window of observation was inappropriately brief. He added this part of the study wasted time and money. A participant asked for clarification on how the data collected during the additional studies would be used.	The study team has tried to include as much data as possible and acknowledged the limited scope of data collection due to this being a planning-level study. The data is supplemental to the existing data collected during the baseline, largely confirming and augmenting that data.	no name	Steve Noble, DOWL	6	In person TAC/STAC meeting 5	Migratory Bird Habitat	
64	One participant expressed concern about how data was weighted during scoring. Steve responded the data sets are maps, with each set of data adding a quantitative map to the database of information.	He noted more specific data is needed to make design decisions, which will happen in the NEPA process. He invited participants to follow up for individual explanations of how data is weighted in the scoring criteria.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Environmental Considerations	

65	One participant noted Southeast Alaska Land Trust (SEALT) and the Alaska Department of Fish and Game (ADF&G) are currently working on a comprehensive habitat remapping, expressing concern this data would not be included.	The PEL study team has used publicly available data and limited field studies to score the Level 2 screening. If data is not publicly available, the data has not been included.	no name	Project Team	7	In person TAC/STAC meeting 5	Wetlands, Protected Lands	
66	One participant commented they are concerned about alternatives being eliminated based on the narrow scope of the corridor.	Minor changes to the alternatives may still be made during the planning-level design process, and the scale of the areas surrounding each alternative are not being ignored in criteria evaluation.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Environmental Considerations, Design	
67	A participant expressed concerns the criteria lacked a mechanism to score potential impacts to undisturbed lands in relation to each alternative.	Undisturbed lands, such as vacant lands, have been considered when quantifying impacts.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations, Design	
68	One participant expressed concern about the assignment of values for each criterion, noting focus on the relative environmental impact scores for Vanderbilt and both Sunny Point alternatives.	The project team responded the criteria need to be quantified to be compared. Specific value assignments are open for explanation and feedback for criteria. The study team requested participants to send written comments and questions, noting small group meeting will be set up to answer questions and receive feedback about environmental impact ratings.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations	
69	One participant requested clarification on the buffer zone around each alternative.	The study team responded buffer zones vary based on alignment and scoring criteria. In general, 100 to 200 feet is used for environmental impact analysis.	no name	Project Team	7	In person TAC/STAC meeting 5	Environmental Considerations	
70	One participant commented geophysical data should be used as a direct criterion in the alternative matrix.	The project team responded the results of the geophysical data cannot be quantified as a single value, but the data will impact other criteria such as the cost needed for different construction methods based on varying surface and subsurface conditions.	no name	Project Team	7	In person TAC/STAC meeting 5	Geophysical	
71	One participant commented the public should have access to information about the airport's plans and potential conflicts, stating any conflict with the airport should be a criterion.	The airport is currently developing a new master plan, which will indicate long-term plans and potential conflicts, affirming no option will be considered that conflicts with the airport's current or future aircraft approach plans. DOWL has conducted meetings with the airport and the Federal Aviation Administration (FAA) to gather information on airport priorities and plans.	no name	Steve Noble, DOWL	7	In person TAC/STAC meeting 5	Airport	
72	One participant asked how essential fish habitat (EFH) is defined, noting EFH is too broad of a term to be used as criterion.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	no name	Project Team	7	In person TAC/STAC meeting 5	Essential Fish Habitat	
73	One participant expressed concern about using the criterion of public support in scoring, noting the Refuge was not shown on the study area and alternatives maps early in the PEL study. This could have significantly impacted the results of public support for alternatives enough to discount the results.	Public support was scored according to the responses to a 2022 survey. Additional public outreach would be undertaken during a NEPA analysis.	no name	Project Team	7	In person TAC/STAC meeting 5	Public involvement	
74	One participant asked what qualifies an area as a wildlife habitat or a fish habitat.	Wildlife habitat is any habitat home to wildlife species, fish habitat is non-terrestrial habitat. Intertidal is habitat to both terrestrial and non-terrestrial species.	no name	Project Team	8	In person TAC/STAC meeting 5	Essential Fish Habitat, Wildlife Habitat	
75	One participant asked if the Coast Guard supports any of the alternatives.	It is too early in the process to get a definitive answer, but that the Salmon Creek alternative is the least flexible of the options in terms of proximity to navigable waters. The two options have been developed at different elevations based on height restrictions from the Coast Guard.	no name	Project Team	8	In person TAC/STAC meeting 5	Navigable Waters	
76	One participant asked why the cost estimate for the Salmon Creek alternative is higher for a relatively short span.	The specific breakdown of cost analysis can be discussed in further detail, as estimates were only recently determined and will be published in the future. Generally the price per foot of bridge can vary widely depending on span and abutment construction details.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction Costs	
77	One participant asked why the proposal for the Mendenhall Peninsula alternative includes the construction of a new road rather than tying it into the existing roads.	Residents on the Mendenhall Peninsula commented repeatedly the disturbance caused by development tying into existing roads would be significantly more impactful than the construction of a new road.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction and Design	
78	A participant commented the criteria to include impacts to commercial property and impacts within 100 feet of commercial property are redundant. Renee requested participants submit written comments on criteria.	The PEL Study Team acknowledges that there are redundancies in scoring, particularly with impacts to the refuge and housing and economic criteria.		Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Commerical	
79	One participant expressed concern the study is being crafted to downgrade the Salmon Creek alternative to make the process of proving there are no viable alternatives outside the Refuge easier.	No alternatives are being up- or downgraded, but the criteria were created without knowing the scoring outcomes. The only interest is moving forward with alternatives that will not present fatal flaws later in the process.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	NEPA	
80	One participant asked if NEPA will reevaluate the environmental impact.	NEPA will evaluate all viable options at a deeper level as required by law.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	NEPA	
81	One participant asked what the cost of the higher elevation option would be at Salmon Creek.	The cost for the Salmon Creek alternative at a higher elevation has not been estimated.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Construction Costs	
82	Several participants commented they would like to see the Salmon Creek alternative continue into the NEPA process as it is the only remaining off Refuge alternative.	N/A			8	In person TAC/STAC meeting 5	NEPA	
83	One participant expressed concerns about longevity of the Salmon Creek Dam, and the need for a barge landing area, which would both be affected be the Salmon Creek alternative.	He noted the high cost of living in Juneau is affected by barging costs. The project team responded a barge landing study had not been conducted.	no name	Steve Noble, DOWL	8	In person TAC/STAC meeting 5	Cost of living	

84	One participant asked if ROW acquisition costs have been included in the evaluation.	The project team responded no; they did not want to inadvertently affect property values in these areas due to gathering data about potential acquisition values.	no name	Project Team	8	in person TAC/STAC meeting 5	Right-of-way	
85	One participant asked about the funding source for this project for construction and maintenance costs.	The project team responded the DOT&PF will be looking into grants for the construction phase of this project, in addition to STIP funding. Maintenance costs will involve CBJ.	no name	Project Team	8	in person TAC/STAC meeting 5	Construction Costs	
86	Why isn't the Refuge Management Plan, specifically regarding hunting and recreation, not noted in the scoring matrix?	Recreation and hunting are grouped into section 4(f) category, in addition to being delineated into habitat impacts. Theresa showed where Section 4(f) was noted on the scoring matrix.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 1	
87	Will the public understand that hunting and recreation opportunities are part of 4(f)?	There will be two additional narratives coming out: 1. Narrative of the Level 2 Screening results to provide further detail on the impact categories. 2. PEL Study, which will go out to the public for comment before it is finalized.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 2	
88	Why was there so little field work done prior to scoring?	Originally the study team used the extensive pool of baseline data for documentation but heard from agencies and the public that more data was wanted, particularly regarding birds in the Refuge. The team realizes more research will be needed in the NEPA process. The scoring criteria is based on existing data, and supplemented with the field work that was conducted.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 3	
89	Why do the Sunny Point alternatives not show the most impact?	The interchanges that are being proposed for each alternative affect the quantity of impacts.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 4	
90	How does the study team define important migratory bird habitat and wildlife habitat?	Wildlife habitat was mostly mapped by vegetation and aerial signatures, and the species that would use that habitat were inferred by the habitat types that were identified. Important bird habitat was mapped by digitized hotspots with a 500-foot buffer.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 5	
91	Can the comments submitted to the PEL Study be made available to the public?	Theresa will check with the project communications group on if the PEL study report would include a public log of comments. Comments received are adjudicated.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 6	
92	Will the NEPA process include all current alternatives, or will some be eliminated before then?	Scoring will affect the answer to that question, to be determined.	Jesse Lindgren, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 7	
93	What is the acreage difference between Sunny Point East and West?	Sunny Point West would add 32.2 acres of impervious surfaces, while Sunny Point East would add 7.9 acres of impervious surfaces.	Roy Churchhill, ADF&G	Theresa Dutchuk, DOWL	3	ADF&G 031924 Summary	Row 8	
94	Does the impact table with values feeds into the scoring matrix?	Yes	Jesse Lindgren, ADF&G	Theresa Dutchuk, DOWL	4	ADF&G 031924 Summary	Row 9	
95	Sue requested the GIS mapper be made available to the public, and the Refuge be shown on the map.	A GIS Mapper including the refuge boundary has been made publicly available.	Sue Rodman, ADF&G	Theresa Dutchuk, DOWL	2	ADF&G 031924 Summary	2nd to last sentence	
96	The limited timeframe of the Bird and Habitat Surveys conducted in September 2023 provide a limited information. How will this information be used?	These surveys conducted to supplement the 15 or more desktop resources used for baseline mapping, including the Audubon Society eBird, hotspots from the Armstrong 2004, and the resources from the 2005 draft Environmental Impact Statement (EIS). Additional data quantifying bird populations would be required and occur during the National Environmental Policy Act (NEPA) phase of a potential future project, during the cumulative analysis.	Winston Smith	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 1	
97	Will lack of public support for alternatives lead to elimination in level 2 screening?	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Winston Smith	Mike Hall, Parametrix	4	Juneau Audubon 032024 Summary	Row 2	
98	How will public perception that bird surveys are complete be managed?	This fieldwork is supplemental and limited, and future fieldwork necessary to determine a preferred alternative under the NEPA process.	Winston Smith	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 3	
99	Why would the Salmon Creek alternative, one of the shortest crossings, not be the least expensive and potentially one of the most expensive?	This question requires engineers to answer.	Winston Smith		4	Juneau Audubon 032024 Summary	Row 4	
100	What happens next?	The study team is collecting advisory committee comments through April 11, 2024, based on expertise and environmental knowledge. The draft PEL study report would be available later in May 2024 and provide an opportunity for public comment, with a public meeting in June 2024.	Gwen Baluss	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 5	
101	Have improvements to the existing bridge been considered?	This alternative had been considered and dismissed in level 1 screening as it did not meet the purpose and need.	Gwen Baluss	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 6	
102	Have improvements to the Douglas Highway or a new road to handle additional traffic been considered?	The preliminary engineering shows the tie in of each alternative to the Douglas Highway. Douglas Highway improvements and additional roads not directly related to a crossing are not covered by this PEL study.	Brenda Wright	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 7	

103	Would structures under consideration be piles or levies?	The Refuge Management Plan required structures on piles, and consistent comments have requested alternatives considered be on piles. Additional engineering would take place during the NEPA process.	Brenda Wright	Theresa Dutchuk, DOWL	4	Juneau Audubon 032024 Summary	Row 8	
104	Is the North Airport alternative still being considered?	This alternative was eliminated in Level 1 screening.	Brenda Wright	Theresa Dutchuk, DOWL	5	Juneau Audubon 032024 Summary	Row 9	
105	Will the GIS mapping be made publicly available?	The study team is actively working to get a public-facing GIS mapper available on the study website. (Completed 4/2/2024).	Gwen Baluss	Theresa Dutchuk, DOWL	5	Juneau Audubon 032024 Summary	Row 10	
106	Have you had a small meeting with the Mendenhall Wetlands Study Group folks?	An invitation to meet was extended to the Mendenhall Wetlands Study Group.	Michael Stanley	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 1	
107	How do the Sunny Point alternatives have no impact to wildlife?	The study team tried to rate rank impacts in a quantifiable way, with direct acreage impacted. Indirect impacts would be assessed during the NEPA process.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 2	
108	How are there only 2 acres of impact for the intertidal zone for the Sunny Point alternatives, and where are those two acres located?	For Sunny Point East, the piles are included in the two acres, as well as the abutment and on the north side too. That's the quantification, and that's how we've provided the numbers.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 3	
109	How is the whole Sunny Point area not considered intertidal impact?	Because structures considered are elevated, impacts to intertidal zones are indirect and will be considered in the future NEPA process.	Julie Berdarski	Theresa Dutchuk, DOWL	4	North Douglas Neighborhood Assocation Summary	Row 4	
110	What natural disaster could affect both the existing bridge and Salmon Creek alternative?	Historical hazard data indicated landslides as a potential natural disaster that could impact the existing bridge and the Salmon Creek alternative.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 5	
111	Whose travel times would improve for the Salmon Creek alternative versus those crossing the middle of the refuge?	The Bridge Volume Forecast Memo notes travel time is significantly improved for users at the Mendenhall Peninsula alternative, though fewer users would divert to this alternative, than for Salmon Creek, though more users would divert to this alternative.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 6	
112	The residential scoring between Twin Lakes (0) and Salmon Creek (-2) seems skewed: no residences are located on the mainland side for either the alternative. What are the residential impacts for the Douglas Island termini for the Twin Lakes and Salmon Creek alternatives?	The scoring was based on number of land acquisitions needed and parcels impacted, which Salmon Creek had seven parcels impacted, and Twin Lakes had zero.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 7	
113	Why is acquisition of properties also scored as right of way?	Right of way is all rights of way, whether residential or commercial.	Julie Berdarski	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 8	
114	How is the public support criterion measured?	This criterion is measured using data from a survey conducted following Open House No. 2, from December 2022 to February 2023.	Michael Stanley	Theresa Dutchuk, DOWL	5	North Douglas Neighborhood Assocation Summary	Row 9	
115	Provide alternative access and transportation - infrastructure resilience. This is not a measure for Level 2 Screening (only Level 1 - see methodology). Please remove.	Will Remove	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Provide alternative access and transportation"	Removed from Table
116	Bridge Volume Forecast Memo states that different percentages of exiting traffic will choose the different crossing locations. Answers should be updated to reflect that a higher percentage would use the Salmon Creek or Twin Lakes alternatives than Mendenhall or the Sunny Point alternatives and would therefore have a more significant improvement. Is it based on data for each individual location? Please share the data and maps the draft numbers are based on.	Will update the scores to reflect percentage of users who will choose each option. The data is based on groupings of alternatives. Please clarify the data needed, the backup mathematical calculations? Please clarify what maps you would like to see.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Decrease traffic congestion"	Updated to reflect Twin Lakes and Salmon Creek see the most traffic (and therefore provide the largest decrease in pressure on the existing birdge). Changed Twin Lakes and Salmon Creek to +2, Vanderbilt and Sunny Point options show a medium decrease in traffic pressure (scored 0) and Mendenhall Peninsula provides the least decrease in traffic pressure (scored -2). All scores are according to the Feb 13, 2024 Bridge Volume Forecast Memo
117	Please share the data and maps the draft numbers are based on. Is it based on data for each individual location/alternative?	There is no data or maps associated with this criteria. Locations of emergency services are publicly available online and provided the basis for the determinations. The scoring is based on each individual location.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Emergency response time"	No Change
118	Please share the data and maps the draft numbers are based on. Is it based on data for each individual location/alternative?	The travel time improvements are available in Table 2 of the Bridge Volume Forecast Memo. Please clarify what data and maps are needed.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	P&N Section "Improve Travel Time"	Revised scores to show all alternatives except Mendenhall Peninsula have up to 65 seconds travel time improvement (scored +2). Mendenhall Peninsula revised to show less improvement than the other alternatives (scored 0). All scores are according to the Feb 13, 2024 Bridge Volume Forecast Memo.

119	The measure for the "Additional Goals" was high/medium/low (see methodology). The Additional Goals should not be weighted equally to the P&N or the "other considerations".	The approved screening criteria memo/methodology (June 5, 2023) states that criteria will be scored +2 to -2. We see the old memo (February 17, 2023) is erroneously still posted on the website and shows high/medium/low for additional goals. Please advise	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals	No Change. Scores based on June 5, 2023 scoring memo/methodology. Updated methodology posted on website to approved June 2023 version.
120	All alternatives meet this goal equally and travel times are considered in a different measure and should not weigh in here. Update answers	Will update to score all build alternatives equally.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Improve Connection"	Revised score of Mendenhall Peninsula to +2 consistent with the score of the other alternatives.
121	This is misleading. Not all alternatives have equal impacts to the environment. Salmon Creek has the least impact on refuge resources (per ADF&G). Please update and share the data and maps the draft numbers are based on.	This score is based on the cumulative score of all environmental criteria (sum of scores in the "natural" category). The scores range from -8 to -15, please advise for the correct threshold for scoring between -1 and -2. For data and maps, please refer to the baseline maps and memos. https://www.jdnorthcrossing.com/documents.html	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	The natural environment scores were re-calculated following all revisions in response to comments. Scores show updated calculations for cumulative scores per alternative of the natural environment criteria.
122	Sunny Point West and East should be -2. They are much longer than other alternatives, bisect the refuge and adjacent to hunting, birding, and other recreation.	Please clarify why length is the measurement parameter for visual, cultural, and scenic identity. Will update according to discussion.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Additional Goals "Maintain the visual, cultural, and scenic identity"	Revised scoring to show Sunny Point Alternatives as -2.
123	Should be linear feet and not acres - SEO and agencies made that comment previously. Sunny Point East has multiple small anadromous streams containing spawning and rearing salmon habitat (per ADF&G). Please update and share the data and maps the draft numbers are based on.	EFH was removed at the request of NOAA Fisheries. Stream and riparian habitat will be measured in linear feet. Will update the approved screening memo which states acreage, to state linear feet. Please refer to the baseline maps and memos for data.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Stream and riparian habitats AND EFH"	
124	This measure is listed in the methodology. Why was it taken out?	Wetland values was not readily available information, but information pertaining to this criteria were sought by completing field surveys of wetlands (2023). This criteria will be updated when the functions and values are finalized.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "High Value Wetlands directly affected"	
125	Please explain how Sunny Point East would only impact 1.3 acres of wetlands. The Douglas connection at Hendrickson Point is wetlands and will likely require a large amount of fill. Consider construction impacts. Consider stormwater runoff including winter road maintenance and other pollutants. Update and revise this scoring.	Sunny Point East ground disturbing footprint as measured against mapped wetlands results in 1.3 acres. A team of professional wetland scientists revised the mapping of Hendrickson point and the quantification of impacts to wetlands of Hendrickson Point is included in the Sunny Point alternatives. Regarding the amount of fill at Hendrickson Point, the cut/fill was evaluated by professional engineers and was calculated in the total impacts to wetlands. Please see the GIS mapper for the differences in footprint between Sunny Point East compared to the other alternatives. Indirect and temporary construction impacts are not known at this time. Please advise and provide sources on how to incorporate winter road maintenance and other pollutants. The study team cannot identify updates needed to scoring.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Wetlands directly affected"	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact wetlands in the MWSGR and therefore score -2.
126	Sunny Point West and East have large impacts to wildlife habitat - within the Refuge and on Hendricksen Point. Impacts to Hendricksen Point was not considered in the scoring. The construction impacts as well as the permanent impacts of the alternatives including maintenance impacts to protected lands (stormwater runoff, salt in winter, etc.), noise impacts to habitat, light impacts, etc.) that impact wildlife habitat should be considered. Hendricksen Point is an important wildlife access point to the refuge, a nesting location for Greater Yellowlegs, etc. Sunny Point East also has impacts to fish (per ADF&G). Please share the data and maps the draft numbers are based on. Impacts go beyond just fill.	Impacts to Hendrickson Point were considered for impacts to wildlife habitat. The entire point is considered habitat and the impacts were quantified. Considerations such as stormwater runoff and use of salt are outside the scope of this planning document and will be addressed in a future NEPA review. Noise impacts and light impacts to habitat would require additional studies and are outside the scope of this planning study; noise and light impacts are particularly challenging to quantify in acres per the scoring criteria. Impacts beyond direct fill are outside the scope of this planning study and would be addressed during a future NEPA review.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Level 2 Screening SEO Comments	Environmental Screening "Wildlife habitat directly affected"	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact habitat in the MWSGR and therefore score -2.

127	Should be acres of important habitat used by migratory birds (migrating and residents) and not nesting locations (see methodology). ADF&G shared a map with "important bird areas" in February - which is the whole refuge and some surrounding areas. The construction impacts as well as the permanent impacts of the alternatives (noise impacts to habitat, light impacts etc.) that impact important bird areas should be considered. Please share the data and maps the draft numbers are based on.	ADF&G's provided "important" habitat is one measure of importance. Can the PEL study team confirm that the jurisdictional agency, USFWS, considers outside of the refuge to be "not important"? Please see the published GIS mapper for locations of eBird hotspots from which the data is based.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Migratory Bird Habitat	Added "in the MWSGR" to the criteria to weight the impacts to the refuge. All alternatives except Salmon Creek impact habitat in the MWSGR and therefore score -2. Because Mendenhall Peninsula partially impacts the refuge is scores -1 and due to Salmon Creek's adjacency it scores -1, per SEO recommendation.
128	Should consider all protected lands (see methodology) which includes the Refuge and impacts on Hendricksen Point (see land designation map created for the PEL study) which is a designated, protected conservation area. Please share the data and maps the draft numbers are based on	Will update protected lands to will include refuge, SEALT, and any other conservation easements. Hendrickson Point is zoned as residential. The comprehensive plan shows Hendrickson Point as Conservation Area, however it is currently zoned as residential and is not set aside specifically for conservation purposes.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Protected Lands"	Updated to reflect acreage of impact to SEALT land, MWSGR, and Hendrickson Point. Re-scored based on updated acreages.
129	This should be a separate category as it is a principle driver of alternative selection. Five of the proposed alternatives have a 4f use, one does not. Scoring should reflect the importance of the "use determination". Hendricksen Point might be a 4f resource. There is a mapped wetland access point	All six alternatives have a 4(f) use, all six use the refuge. Section 4(f) is its own category, would the recommendation be to move it out of environmental resources? Final determination of 4(f) resources (Hendrickson Point) will be made during NEPA through consultation with the OWJ (CBJ) and SEO. Because Hendrickson Point is zoned as residential and is not a designated park or recreation land, wildlife or waterfowl refuge, there is substantial question as to whether is will be considered 4(f) or not. The determination will be up to the OWJ. Should the study team reach out to CBJ for an initial take on whether or not they believe the property is significant? According to the Comprehensive Plan, the designation conservation area may imply park, recreation, or natural area. Natural areas are not considered 4(f) and considering the recent Attorney General determination that Helen Louise McDowell Sanctuary conservation area in Anchorage is not considered 4(f), there is additional question as to whether Hendrickson Point will be considered 4(f).	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Section 4f/6f resources affected	Updated to consider Hendrickson Point as a potential 4(f) resource. Changed scoring to -2 for all alternatives that impact more than one 4(f) resource (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Vanderbilt).
130	Should include the total number of acres of impervious surfaces added by each alternative. It does not appear that the bridge footprint and possibly some additional roadway were included in this calculation. Also, do not add already existing impervious surfaces that would be incorportated. Please add missing surfaces for each alternative and share the data and maps the draft numbers are based on.	All roadway impervious surface that is new (would be an addition) was calculated. All of the existing impervious surfaces were not included in the calculation of additional impervious surfaces for each alternative. Will update to include bridge decks as impervious surfaces. Please clarify what data and maps are needed.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Impervious surfaces added	Added bridge decks to calculations and added "in the MWSGR" to the criteria to weight the impacts to the refuge.
132	A qualitative measure listed in the methodology. Why was it taken out?	CBJ indicated the qualitative decision is best left to CBJ decisionmakers to determine. Removed criteria at the request of CBJ. Please advise the best way to document this decision.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Environmental Screening "Effect on visual/sceniuc quality"	No change, "effect on visual/scenic quality" remains deleted.
134	Developable land "impacted" should read "acquired" (see methodology).	Will update terminology.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Housing and Economic "Developable land impacted"	Changed imacted to acquired.
135	No EJ community or gathering spaces are impacted by either alternative. Update to 0. A private, commercial dock is not a community gathering space.	Vanderbilt impacts a public water access point, please confirm whether or not this would be considered a gathering space. Will remove the private dock as a Salmon Creek impact.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Social "EJ Community"	Changed Salmon Creek to no impacts and scored as 0. Vanderbilt changed to 0 because of recommendation to not consider 5-mile beach access point as a community gathering place.

136	Recommend changing MP to -1 (has an impact). Please share the data and maps the draft numbers are based on.	Will revise to -1 to reflect one residential parcel impacted.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Housing "Residential Uses Affected"	Changed to -1.
137	Each alternative is an improvement. MP should be 1 compared to the others. Please share the data and maps the draft numbers are based on.	Will change Men Pen to positive 1.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Safety	Changed Mendenhall Peninsula to +1
138	The numbers appear to be incorrect. Sunny Point alternatives are too low considering their size. The refuge and SEAL Trust land have to be considered as ROW that would have to be acquired - both appear to be missing in at least the Sunny Point East number. Please explain and share the data and maps the draft numbers are based on.	The numbers are correct. The numbers were quantified based on overlaying the alternatives against the CBJ parcel data and quantifying both the acreage needed for acquisition as well as the number of full or partial parcels.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Total ROW needed"	Revised scores to show -2 for both Sunny Point alternatives as recommended by SEO.
139	Please share the data and maps the draft numbers are based on.	Please review the GIS Mapper for alternative alignments. Please turn on the general ownership layer to see the residential impacts.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Residential Property Acquisition"	No change
140	Please share the data and maps the draft numbers are based on.	Please review the GIS Mapper for alternative alignments. Please turn on the general ownership layer to see the residential impacts.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	ROW "Commercial Property Acquisition"	No change
141	"No Build" should be in a number and not percentage. Should be based on all comments received and not on the survey only. Please share data and how comments were evaluated.	The data is based on a survey conducted in 2022. Between the build and no build alternatives, only 30.53 percent preferred no build. The survey asked between build alternatives which was preferred. Comparing the number of individuals who selected no build to the number of individuals who selected an individual alternative inflates the no build count by breaking up "build" into nine categories of build alternatives. Because of the inflation, we cannot use a number of respondents for no build. Comment counts are not an objective measure of viewpoints. Comment counts can be inflated by individuals sending multiple comments stating the same viewpoint, whereas other individuals are satisfied sending one comment of their viewpoint. A comment count would weight the results in favor of vocal individuals. Also, comment count is not supported as a survey method accepted by social sciences. Questionnaires and surveys are supported methodologies.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Public Support	No change
142	If navigability of the channel is a requirement of the Salmon Creek alternative (bridge height requirement) is the height requirement taken into account in the cost for all the alternatives that cross the "navigable" channel? There are no docking or other facilities within the refuge. This was specifically called out in the CBJ presentation and gave the appearance of that it was only a consideration at that location. Please explain.	Yes, the height requirements have been evaluated and are reflected in the cost for all the alternatives.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Cost "Estimated cost"	No change
143	Estimated cost should include construction, mitigation, and maintenance (see methodology) - mitigation is missing in draft estimates. Please update and share estimate.	Mitigation requirements and costs are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Cost "Estimated cost"	No change
144	Please share the data and maps the draft numbers are based on.	This criteria is based on reduced travel times. Please see the bridge volume forecast for travel time savings.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	P&N Section "Reduce energy consumption"	No change
145	Each alternative meets this goal. Please share the data and maps the draft numbers are based on.	The positive scores reflect that each alternative does meet this goal. The Origin-Destination and Bridge Forecast memo notes greater benefits realized from the Sunny Point East and West Alternatives owing to more traffic using those crossings based on existing volumes and their location. The scores awarded reflect the likely number of users moving to the different crossing locations. No change recommended.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Level 2 Screening SEO Comments	Additional Goals "Traffic capacity"	Revised so each alternative scores the same for this goal (+2)
146	Deleted	N/A	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	P&N Section	
							P&N Section "Improve transportation for non-motorized users"	

							P&N Section "Reduce energy consumption"	
							P&N Section "Decrease traffic congestion on DI Bridge"	
							P&N Section "Access to healthcare & emergecy services"	
							P&N Section "travel times to workplaces & critical res."	
							Additional Goals	
							Additional Goals	
							Additional Goals "visual, cultural, and	
155	edited - It seems not all wetlands in the area were considered	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "total wetlands"	
156	missing (why was this taken out?)	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "High valued wetlands"	
157	edited - it seems not all intertidal impacts were considered	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Intertidal"	
158	redo	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "steam/Rip habitat"	
159	redo	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "EFH"	
160	edited	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Wildlife habitat"	
161	needs to be reviewed	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "Anadromous"	
162	edited - see comment; use ADF&G provided info	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "bird impacts"	
163	edited - see comment	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "4f/6f"	
164	edited - see comment	Theresa to complete	DOT&PF SEO		1	JDNC Level 2 Screening SEO Comments Scoring Table	Environmental Screening "protected lands"	
							Environmental Screening "impervious surfaces"	
							Environmental Screening "visual/scenic quality"	
							Social "EJ"	
							Housing "Resdiental use"	
							Safety	
							Cost "Construction, ROW, Mitigation"	
							Cost "Maintenance"	
							ROW "total ROW"	
							Public Support	
							P&N	

							P&N "improve transportation for non-motorized"	
							P&N "reduce energy consumption"	
							P&N "decrease traffic congestion on DI Bridge"	
							P&N "emergency response time"	
							P&N "access to healthcare & Emergency services"	
							P&N "travel times to workpalces & critical res."	
							Additional goals "additional traffic capacity"	
							Additional goals "AMM impacts to the environment"	
							Additional goals "Visual, cultrual, and scenic identity"	
							EV Screening "wetlands"	
							EV Screening "high value wetlands"	
							EV Screening "intertidal"	
							EV Screening "stream, rip habitat"	
							EV Screening "EFH"	
							EV Screening "wildlife habitat"	
							EV Screening "anadromous"	
							EV Screening "bird impacts"	
							EV Screening "4f/6f"	
							EV Screening "protected lands"	
							EV Screening "impervious surface"	
							EV Screening "visual/scenic quality"	
							Social "EJ"	
							Housing "Resdiental use"	
							Safety	
							Cost "Construction, ROW, Mitigation"	
							Cost "Maintenance"	
							ROW "total ROW"	
							public support	

203	As mentioned in the comments on the JDNC Level 2 Screening results, Section 4(f) impacts are a primary driver of alternative selection and should not be grouped with the other environmental impacts. Perhaps it should be its own category just below the P&N section.	Section 4(f) has its own category. It is an environmental parameter, so we believe it belongs in the environmental criteria. Moving the criteria will not impact the evaluation, but we can give it its own callout.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	1st paragraph	Moving the category from one section to another does not impact the overall score. No change made.
204	Section 4(f) will be analyzed during the NEPA process and is not formally evaluated within the PEL process, the Level 2 Screening criteria touches on many of the components of the Section 4(f) evaluation. We realize that additional information will be gathered during the NEPA process, and the alternative selection process will follow its own path during NEPA. However, if the purpose of this PEL is to provide a viable set of alternatives to carry forward into NEPA it is important to consider the potential implications of impacting a Section 4(f) resource	Consideration has been given to Section 4(f) resources.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	2nd paragraph	N/A
205	Based on the information provided in the PEL study it is reasonable to assume that five of the alternatives have Section 4(f) impacts that would be considered a “use” and that none of the Section 4(f) “use” alternatives would likely meet the requirements of a “de minimis” determination. If those alternatives proceed under NEPA, then it is almost certain that an individual Section 4(f) analysis will be required.	Six of the alternatives have a 4(f) use. We do not know what mitigation would be proposed for any of the alternatives so it is too early to say whether alternatives may qualify for de minimis or not.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	3rd paragrah	N/A
206	The individual Section 4(f) analysis requires the evaluation of an avoidance alternative. The avoidance alternative identified in the PEL study and presented to the public which does not have a Section 4(f) “use” is the Salmon Creek alternative. When selecting an alternative through the individual Section 4(f) process the most important point to remember is if an avoidance alternative is determined to be feasible and prudent it must be selected. The feasible and prudent analysis is focused on the avoidance alternative and not a comparative analysis among all alternatives. A preliminary Section 4(f) evaluation based on the information currently available in the PEL study and Level 2 Screening, per FHWA regulations and guidance is below.	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	4th paragrah	N/A
207	<u>Feasibility:</u> Is the Salmon Creek alternative feasible; can it be built? An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. It would be very difficult to argue that a bridge at Salmon Creek cannot be built given that the current Juneau Douglas Bridge is built across the same channel on a similar footprint to what is proposed at Salmon Creek with a mainland signaled intersection already in place. **Is the Salmon Creek alternative feasible? Yes**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	5th paragrah	N/A
208	<u>Prudence:</u> <u>Does Salmon Creek meet the purpose and need?</u> Yes, Level 2 Screening indicates that it does. <u>Does Salmon Creek result in unacceptable safety and operational problems</u>? There is no indication in the screening that it does and it’s difficult to argue that it would, given that the origin and destination study in the PEL indicates that traffic volume would be at most half of the traffic volume currently crossing the JD Bridge and considerable design leeway is allowed in an effort to avoid a 4(f) resource.	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	1	JDNC Thoughts on Section 4(f)	6th paragrah	N/A
209	<u>After reasonable mitigation would Salmon Creek still cause:</u> <u>-Severe social, economic or environmental impacts?</u> o Social: **No** o Some economic impact but severe relative to the economy of Juneau: No o Environmental impacts, as the scoring is refined based on stakeholder and agency comment, Salmon Creek will likely score among the lowest impact of all alternatives proposed: **No** <u>-Severe disruption to established communities?</u> **No** <u>- Severe disproportionate impacts to minority or low impact populations</u>? **No** <u>-Severe impacts to environmental resources regulated by other federal agencies?</u> **No** All proposed alternatives impact the same resources regulated by other federal agencies. Impacts are the least severe at Salmon Creek. Is it likely that Salmon Creek could be permitted? Yes. <u>-Cost of extraordinary magnitude?</u> **No**, Salmon Creek is among the cheapest alternatives. <u>Multiple factors listed above that cumulatively cause unique problems of extraordinary magnitude?</u> **No**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Thoughts on Section 4(f)	1st paragraph/header	N/A

210	This preliminary analysis is only intended as illustration of the significant hurdles the use of Section 4(f) resource presents. DOT&PF does have projects that impact Section 4(f) resources, but considerable efforts were made to limit those impacts resulting in a de minimis use or a programmatic evaluation. It would be unlikely that an alternative that went through the Mendenhall Wetlands Refuge would result in anything less than an individual Section 4(f). In the past decade DOT&PF has done one individual Section 4(f) evaluation for a project that did not move forward to construction and another that is currently in the initial stages of an individual Section 4(f) for a project where the existing road is completely enveloped by a Section 4(f) resource and there are no feasible avoidance alternatives. It's also important to consider that other state DOTs rarely pursue individual Section 4(f) evaluations due to the potential for that decision to be legally challenged. Instead, most states go to considerable effort to avoid the use of a Section 4(f) resource or apply a programmatic or de minimis. **A separate path to avoid the "use" determination for those alternatives that go through the Refuge.**	It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	DOT&PF SEO	Theresa Dutchuk, DOWL	2	JDNC Thoughts on Section 4(f)	2nd paragraph/header	N/A
211	Another possibility resides in the applicability of 774.11(i), since the MAP21-induced amendments to the regulations created a new subsection (i)(2) that gives greater flexibility for the demonstration of joint planning. (2) Concurrent or joint planning or development can be demonstrated by a document of public record created after, contemporaneously with, or prior to the establishment of the Section 4(f) property. Examples of an adequate document to demonstrate concurrent or joint planning or development include: (i) A document of public record that describes or depicts the designation or donation of the property for both the potential transportation facility and the Section 4(f) property; or (ii) A map of public record, memorandum, planning document, report, or correspondence that describes or depicts action taken with respect to the property by two or more governmental agencies with jurisdiction for the potential transportation facility and the Section 4(f) property, in consultation with each other. CBJ is the entity that needs to go through the process with DNR to get the ROW and DOT&PF's decision of a formal reservation will be easier if CBJ has already successfully converted that reservation into a ROW. How this process would work is beyond the scope of statewide environmental and even if successful, it could potentially run into issues with the EPA/USACE and LEDPA (Least Environmentally Damaging Practicable Alternative). *[Attachments include: AS 16.20.034 Mendenhall Wetlands State Game Refuge, AG Opinion re Transfer of Refuge Land, and AG Opinion re AS 16.20.034(i) and (j)]*	Understood.	DOT&PF SEO	Theresa Dutchuk, DOWL	2 and 3	JDNC Thoughts on Section 4(f)	Last paragraph	N/A
212	This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative. Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation. Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the MendenhallWetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse. The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge. The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	2	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Executive Summary	

213	Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF must select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives. Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	5	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Off-Refuge Crossing Priority	
214	The Purpose and Need criterion of “Improving travel times” should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ’s highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives. The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF’s travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.	The scoring values are based upon data in the appropriate memos .	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	6	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Reference Actual Time Savings of All Alternatives	
215	We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.	Further review of hydraulic and hydrologic forces and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	6	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Crossing Structures Limited to Elevated Structures	
216	DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels. First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	See response to Comment 10 - is this consistent? (CJW)
217	Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.	The PEL Study team has received a number of comments and incorporated them into the study as appropriate.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	

218	Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).	The Draft Level 2 scoring evaluated impacts to bird hotspots, Sunny Point East did not impact any bird hotspots which is reflected by the Draft Level 2 scoring of 0. The wetland impacts are complete calculations of fill placement by alternative. The revised scoring of the visual, cultural, and scenic identity criteria is as recommended by the DOT&PF SEO.	Mendenhall Wetlands Study Group	Theresa Dutchuk, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
219	The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	7	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
220	The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.	Recommendation noted about fractional values. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Re-scoring the DOWL Matrix	
221	DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).	The assumption is based from traffic data showing peak congestion surrounding the existing Juneau-Douglas Bridge.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
222	Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
223	The alternatives should be re-scored to reflect the gradient of impact: Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	8	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	1. Purpose and Need "Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections"	
224	DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.	Comment noted. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Mendenhall Wetlands Study Group	CJW/EA/TD	9	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	

225	A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key “environmental linkages” – the purpose of the Planning and Environmental Linkages (PEL) process.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations. In addition, please note "convenience" is not a criteria in selection of proposed sites considered by engineers in development of alternatives.	Mendenhall Wetlands Study Group	CJW/EA	9	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
226	Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	CJW/EA	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
227	Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL’s choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time from being located in or outside of the Refuge. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
228	The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	10	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Avoid, minimize, and mitigate impacts to the environment"	
229	DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau’s Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	CJW/EA/TD	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	2. Additional Goals "Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island"	
230	DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for ”impervious surfaces added”, but is an incomplete description of the structures’ impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
231	Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL’s acreage tally. DOWL’s recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.	The closet reference is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	11	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	

232	Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.	Impact acreages include both wetlands and water bodies, not limited to the footprint on the mainland. Impact acreages were derived from delineated wetlands on the mainland as well as fresh waterbodies. Waters include any area below the ordinary high water. The high tide line was determine mudflats and vegetated intertidal wetlands apart of the Cowardin classification system.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
233	The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary	The list of data sources are listed in Section 2 and the types of wetlands or waterbodies included are included in Table 3 of the Wetland Delineation Report.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
234	Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
235	Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	12	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wetlands directly impacted"	
236	DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.	The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	13	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Intertidal zone directly impacted"	
237	According to communications from the PEL team the wetland acreages were being tallied for all "wetlands and waters" jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL's acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected	A breakdown of intertidal and freshwater impacts are located within the Wetland Delineation report. The footprint for the Egan Drive interchanges were included due to a goal to improve safety, including conflict points. Specific quantities for fill material and support structures are not yet defined in this phase of the PEL process and will be more defined in the design phase.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	13	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Intertidal zone directly impacted"	
238	As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion "Fish Habitat Affected". We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.	EFH impacts were removed following the recommendation from NOAA Fisheries.	Mendenhall Wetlands Study Group		14	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "EFH"	

239	This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.	Different habitat classifications for species will be developed further into the NEPA analysis.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	14	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wildlife habitat directly impacted"	
240	Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Wildlife habitat directly impacted"	
241	Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	Mendenhall Wetlands Study Group	CJW/TD (from #8 and #12)	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
242	DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	CJW/TD	15	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
243	The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.	"Hotspot" was a term adopted from Armstrong et al. 2004 as well as eBird. Proximately to nesting locations (500') is the critieria used for the rating from the appropiate existing and field data.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
244	eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.	All appropiate and relevent data will be used to determine impacts to migratorty birds. The points referred to in the comment are in fact place holders before obtaining additional data apart of the NEPA process.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
245	We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations	Comment noted.	Mendenhall Wetlands Study Group	CJW	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	
246	In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.	A more detailed evaluation of impacts to bird habitat will be undertaken during a NEPA analysis.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Critieria and Rating Issues	

247	SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	16	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
248	Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
249	The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
250	The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
251	The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
252	Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	17	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Sunny Point East and West	
253	The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003 (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	

254	The Mendenhall Peninsula crossing alternative runs through the top bird “hotspot” at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as “first tier” for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these “first tier hotspots,” representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	
255	Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge’s “top hotspot” and “probably among the most important feeding habitat for ducks and shorebirds” on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird’s Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The “Hotspots” authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two “second tier hotspots,” the channels, rockweed beds, and tideflats extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of “seasonal hotspot” f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	18	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Mendenhall Peninsula	
256	The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 “top tier” refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).	Comment noted.	Mendenhall Wetlands Study Group	CJW	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
257	On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
258	Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.	Comment noted.	Mendenhall Wetlands Study Group	CJW	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	

259	Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt (“Pioneer”) marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a “nearby hotspot” in the Hotspots report, important as a “refuge from the refuge” and for wildlife viewing (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	19	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
260	The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a “second tier hotspot” and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
261	Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Twins Lakes	
262	The Twin and Vanderbilt impact areas overlap at Vanderbilt (or “Pioneer”) marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered “nearby hotspots” (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
263	The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt (“Pioneer”) marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek’s glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a large tidal “island.” Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal “island.”	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	20	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
264	The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
265	We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area’s role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	

266	In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	CJW/TD (from #8)	21	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Important migratory bird habitat" Salmon Creek	
267	DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative	Level 2 scoring was revised to consider all property within the Refuge in order to maintain its integrity. However this weighted criteria did not alter the results drastically.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	22	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Section 4(f)/6(f) resource affected"	
268	Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.	Hendrickson point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	22	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Section 4(f)/6(f) resource affected"	
269	DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.	The Project Team eliminated properties from the analysis if it did not fall within the project footprint or specific to the scoring criteria of within a certain proximately.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
270	In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	CJW (same as #28)	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
271	In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.	The Refuge and its adjoining properties such as designated access points are acknowledged in the scoring process.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
272	When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	23	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Protected lands directly affected"	
273	This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	Mendenhall Wetlands Study Group	CJW/TD (same as #54)	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
274	DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
275	ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	

276	The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	24	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Social"	
277	DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated total construction"	
278	MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated total construction"	
279	Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	25	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	3. Environmental Screening "Cost:Estimated annual maintenance"	
280	The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative. Scoring MP WSP ESP VB TL SC DOWL -11 -8 -3 -10 -6 -14 MWSG -23 –20 -17 -11 -6 -10.5	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	26	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
281	MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity: Lowest Impacts Twin Lakes -6 Salmon Creek -10.5 Vanderbilt -11 East Sunny Point -17 West Sunny Point -20 Highest Impacts Mendenhall Peninsula -23	Comment noted	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	26	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
282	A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Mendenhall Wetlands Study Group	CJW (pulled from # 13 response)	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
283	Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives	Comment noted. The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	

284	The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.	Comment noted.	Mendenhall Wetlands Study Group	Emily Anderson, DOWL	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
285	The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.	None of the six alternatives evaluated in Level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
286	If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	27	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
287	The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: “1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation.” The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	CJW, DOWL from M. Hall, Parametrix	28	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
288	The National Transportation Act of 1966 provides instruction under Section 4(f): “The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use.” If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats. [see Figure 1, Map Key, Mendenhall Penisula, West & East Sunny Point, Vanderbilt, Twin Lakes, Salmon Creek figure]	Comment noted.	Mendenhall Wetlands Study Group	CJW	28	Mendenhall Wetlands Study Group Comments on the Level 2 Screening Results for the JDNC PEL Study	Summary of scores	
289	The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.	Recommendation noted. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies.	ADF&G	Emily Anderson, DOWL	1	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	

290	The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.	Recommendation noted. Criteria on how metrics were applied to derive at quantities can be shared further in the NEPA process.	ADF&G	Emily Anderson, DOWL	1	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	
291	We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.	Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	ADF&G	CJW/TD	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Overall scoring System	
292	For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).	Acreage of added impervious surface includes piles and bridge decks.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
293	Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.	Comment noted.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
294	Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.	If referring to the figure in the "Wetland Delineation" presentation slide (pg. 9), the wetland layer displayed is from the National Wetland Inventory and is typically not entirely accurate. The data used in the scoring is from the wetland delineation fieldwork.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
295	Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.	This score includes linear feet of impact to streams and a 50-foot riparian buffer.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
296	Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.		ADF&G		2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
297	The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DO&PF Statewide Environmental Office.	ADF&G	CJW/TD (#8)	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
298	Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.	Anadromous streams impacted values were updated from, MP: 0, SPW: 8, SPE: 4, VB: 3, TL:0 to MP: 1, SPW: 14, SPE: 4, VB: 3, TL: 0.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Environmental Scoring	
299	The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting, fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'	Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	2	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	
300	By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects: 1.Public access to and within the refuge; 2.Opportunities for hunting waterfowl and fishing within the refuge; 3.Opportunities to recreate in the refuge; and 4.Opportunities for viewing, photography, education, and study of fish and wildlife	Recommendation noted. Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	

301	In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies, such as impacting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives located outside of the Refuge.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Section 4(f)/6(f) Resources	
302	Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.	The PEL study team rescored the alternatives with two additional methodologies, such as impacting or bisecting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives. Particular functions of the Refuge such as habitat types will be analyzed further along in the NEPA process.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
303	Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	ADF&G	CJW/TD #8	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
304	We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations	The scoring for Level of Public Support is based on survey responses. The No Build reflected percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative received.	ADF&G	Emily Anderson, DOWL	3	ADFG Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	General Comments	
305	We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories. However, the PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	USFWS	Emily Anderson, DOWL	1	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
306	This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
307	If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
308	In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
309	We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically: The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.	Recommendation noted.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
310	Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	USFWS	CJW/TD #10	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
311	If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process	A narrative of the Level 2 Screening scores will be provided in the PEL Study.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
312	For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.	Recommendation noted. Additional criteria for scoring may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
313	The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives	The No Build score reflects the percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative comments received.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	

314	It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public	Scores are used as a screening tool for alternative comparison and overall feedback. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	Emily Anderson, DOWL	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
315	In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?	[STANDARD RESPONSE – CONCERN ABOUT USING STUDIES SUPPORTING PEL PROCESS] The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis.	USFWS	CJW	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Level 2 Screening Process	
316	The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts. -We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	CJW, DOWL from M. Hall, Parametrix	2	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
317	In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved: -Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
318	Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.	Recommendation noted. Additional criteria for scoring such as habitat and species may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
319	Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc	Recommendation noted. Additional criteria for scoring such as migratory bird life stages may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
320	The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.	Comment noted.	USFWS	CJW	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
321	Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.	Comment noted.	USFWS	CJW	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives General Comments	
322	The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (Brachyramphus marmoratus), black oystercatcher (Haematopus bachmani), rock sandpiper (Calidris ptilocnemis), short-billed dowitcher (Limnodromus griseus), lesser yellowlegs (Tringa flavipes), red knot (Calidris canutus), California gull (Larus californicus), olive-sided flycatcher (Contopus cooperi), rufous hummingbird (Selasphorus rufus), chestnut-backed chickadee (Poecile rufescens), varied thrush (Ixoreus naevius), and Vaux's swift (Chaetura vauxi). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.	Recommendation noted. The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome. Recommendation noted. Additional criteria for scoring such as migratory bird species and habitat may be analyzed further along in the NEPA process.	USFWS	Emily Anderson, DOWL	3	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	

323	Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.	Recommendation noted. A more robust analysis on bald eagle nests will occur further within the NEPA process.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
324	The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.	Comment noted. A more robust analysis on fish species will occur further within the NEPA process.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
325	Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study. It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
326	Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?	Mitigation requirements and costs are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	USFWS	Emily Anderson, DOWL	4	USFWS Comments - Juneau Douglas 2nd Crossing Draft PEL Level 2 Screening	Preliminary Alternatives Avoidance, minimization, and mitigation for Service Trust Resources	
327	SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process.	SEALT	Emily Anderson, DOWL	2	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Technical Advisory Committee Engagement	
328	PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.	Comment noted. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	Emily Anderson, DOWL	2	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Technical Advisory Committee Engagement	
329	The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.	All comments will be logged and are included as an appendix to the PEL Study for public record.	SEALT	Emily Anderson, DOWL	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments		
330	In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	

331	For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	
332	The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation.	SEALT	CJW	3	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Quality of Information and Expertise	
333	It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	CJW	4	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
334	The SEALT Habitat Mapping and Assessment Project includes two significant components: 1. A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and 2. A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	CJW	4	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
335	The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. In addition, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Habitat Mapping and Assessment Project as Baseline for Review of PEL Study Reports	
336	SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find no relation between the wetland survey report and the impact quantification matrix or scores and no functional assessment as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is no summary of the wetland acreage to be impacted by type and alignment.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW/EA	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
337	It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	SEALT	CJW/EA	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	Possibly need SME clarification on use of the term "salt marsh." It IS used in caption for Photos PP-40 and PP-27.
338	It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.	Comment noted. Wetland habitats were broken out by alignment at a later date on March 13, 2024.	SEALT	Emily Anderson, DOWL	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	

339	We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by SEALT Comments - JDNC PEL Study Level 2 Screening 6 alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.	Comment noted. Further coordination is needed to distribute shapefiles.	SEALT	Emily Anderson, DOWL	5	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
340	First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Review of DOWL Wetland Field Survey Report	
341	Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.	Comment noted. The SEALT 2024 Assessment Area map and 2023 Habitat map were reviewed for the wetland delineation report.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
342	Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
343	The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	CJW	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
344	The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)	Comment noted. A more robust analysis on migratory bird habitat within the Refuge will occur further within the NEPA process.	SEALT	Emily Anderson, DOWL	6	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Tidal Wetland/Waters Delineation	
345	Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	SEALT	CJW	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Hendrickson Point is not mentioned in the Wetland report.
346	It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.	The closest reference found is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	SEALT	CJW/EA	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	
347	Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.	The closest reference found is the CBJ Wetlands Management Plan (2016). Please share reference.	SEALT	Emily Anderson, DOWL	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	

348	Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the “missed” area in DOWL’s report has significant cover of rusty Menziesia, a shrub classified as “facultative upland” although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.	Rusty Menziesia, commonly known as Fool's Huckleberry or False Azaela, is noted in the datasheets in accordance to the USACE State of Alaska 2016 Wetland Plant List as Menziesia ferruginea. Sample points from Hendrickson Point noted dominant men. fer. as high as 40 percent in areas classified as wetlands although a Facultative Upland species. This was not classified as morphological adaptation due to the absence of men. fer. solely growing within hummocks and the general lack of snagged trees.	SEALT	Emily Anderson, DOWL	7	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	There is some criticism about DOWL's experience to ID wetlands in this comment. Is the PEL level of study the reason for the perceived lack of experience? (i.e., "survey-level" for alternatives scoring)
349	Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives’ alignment crossing Hendrickson Point. Inappropriately considered “FACUP” (“facultative upland,” usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.	Crabapple (Malus fusca) was not encountered during the wetland, intertidal, or migratory bird survey. This species is considered a Facultative Wetland (FACW) according to the USACE State of Alaska 2016 Wetland Plant List. The most commonly encountered hemlock was Western but has the same indicator status as Mountain hemlock as Facultative. Sample Point 12 did not contain any tree species in the shrub or tree stratum due to beyond 30 feet from the soil test pit.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Same as above for 346.
350	Given the difficulties of delineation with the USACE’s weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL’s delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.	The footprints of Sunny Point East and West largely vary due to the different preliminary design elements of the intersections.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Seems to be information missing in Wetland Report about Hendrickson Point. Do we need to request this reference?
351	We observe, however, that DOWL’s impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.	The wetland delineation fieldwork included the proposed alignments with 150-foot buffer from the edge of the footprint. Exact feet of footprint may vary in some areas due to the alignment footprint containing intersection features or just the roadway.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	issues with engaging on project portal.
352	Some of the “missed” areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from “impacted wetland acres” tallies used for comparing alternatives, so this omission is significant and concerning.	Aerial photography and LiDAR imagery were reviewed prior to and post field studies. Although ADF&G does not classify the streams within the project footprint as anadromous, field notes did not document any presence of fish or other aquatic species. The habitat surrounding the mapped streams were largely forested with dominant species of Western Hemlock (FAC) and Fool's Huckleberry (FACU). Even with wetter than normal climatic conditions, yellow-skunk-cabbage was the only OBL or wetland specific species found along the stream banks to help indicate wetland conditions.	SEALT	Emily Anderson, DOWL	8	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	SME - does "significant and concerning" (in the comment) affect the screening-level for alternatives?
353	While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.	Dominant species of the sample point showed little wetland vegetation despite wetter than normal conditions. Even in a flatter area that may be retaining water due to the landscape, the area did not contain any primary hydrologic indicators such as saturation or a high water table.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	There is no mention of "Hendrickson Point" in the May 2024 Wetlands Delineation and Functional Assessment - SME?
354	The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ’s 2014 mapping were also missed along the Mendenhall Peninsula alignment.	Field surveyors took extra precaution to be respectful to property owners and did not access private parcels even if e permission was pre-arranged. Trail locations are not typically documented for wetland delineations. Mapped forested (few) CBJ wetlands not encountered during field survey included north Mendenhall Peninsula within private property and field surveys captured more fw wetlands in this area and the southern portion than shown on CBJ mapping.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	

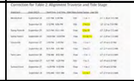
355	SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.	Comment noted.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Freshwater Wetlands	Hendrickson Point is not mentioned in the Wetland report.
356	The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.	A functional assessment was completed on March 13, 2024.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
357	The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
358	The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	9	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
359	SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.	Comment noted. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work	
360	1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	The functional assessment is included in the May 2024 report.
361	2. What protocol will DOWL use?	Wetland delineation will be in accordance with the 1987 USACE Wetlands Delineation manual and the 2007 Alaska Regional Supplement. WESPAK is the protocol for the functional assessment.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
362	3. Will the alternatives be re-scored using the functional assessments?	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
363	4. Will the functional assessments be completed before or after the public comment period opens?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
364	5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?	The scores and function ratings for specific functions or values including aquatic habitat are included as Appendix 4 of the wetland delineation report. Impacts for each alternative's harm to species will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	
365	6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?	If approved by the PEL Study Team, another delineation may be feasible during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Lack of Functional Assessments in DOWL's Work, Questions	Hendrickson Point is not mentioned in the Wetland report.
366	The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: "This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	10	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
367	SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	

368	The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft wide alignment for each alternative, and with few habitat types.	The area covered in the report includes the footprint within Fritz Cove between the Mendenhall Peninsula and Douglas Island.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
369	While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:	Comment noted.	SEALT	CJW	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
370	For example, the intertidal crossing distances given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
371	Low marsh acreage in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for high marsh as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)	Comment noted.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
372	Special habitats mentioned in the report such as mussel/rockweed habitat, channels, and deltas that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
373	Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the "low marsh" habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
374	High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for the report's "upper intertidal" do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report's upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	Emily Anderson, DOWL	11	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
375	High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
376	While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
377	It might also be useful in this project area to map "wet high marsh" and/or "ponded high marsh" as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.	Comment noted.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	
378	It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to - 10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?	The Intertidal Habitat Survey Report states the upper limit of tidal influence in some areas within community structures of up to 25' from the MLLW, a relative difference of 15' (the Mean High Water). These areas along Egan Drive would not be classified as intertidal as they are vegetated areas and documented in the field surveys. Calculations were based off exact linework provided from the field surveys and may vary depending on exact location.	SEALT	Emily Anderson, DOWL	12	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Intertidal Habitat Survey Report (Dec 2023)	

379	The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.	The intention of survey and report is to classify and map habitat types pertinent to migratory birds. The scoring methodology included proximately to nesting locations, indicating an higher value of habitat to a degree. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
380	Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.	The intention of survey and report is to classify and map general habitat types pertinent to migratory birds species along with species observation. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	**Bird Habitat**	
381	DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.	An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
382	The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	Emily Anderson, DOWL	13	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
383	The PEL bird habitat impact rating shows "0"s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome. Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	Emily Anderson, DOWL	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	onse about bird habitat in the refuge (comment 8)
384	How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from "hotspots". Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound if applied correctly and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	CJW	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	

385	If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The 'points' represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	CJW	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
386	For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.	Comment Noted.	SEALT	CJW+	14	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Bird Habitat	
387	Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."	Comment noted. NEPA requires addressing cumulative impacts as part of the impacts analyses.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
388	Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
389	These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
390	In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. Every crossing alternative would disrupt one or more anadromous fish streams. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
391	Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	

392	The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.	Comment noted.	SEALT	CJW	15	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
393	The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Fish Habitat	
394	The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
395	The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
396	SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
397	The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
398	The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
399	Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor. While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.	Comment noted.	SEALT	CJW	16	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mammal Habitat on Hendrickson Point	
400	The "Introduction" starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.	Agreement with the commentor. This was an editorial mistake in the Introduction paragraph of the Eelgrass Survey report.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Tier 1 Eelgrass Delineation Report (Feb 2024)	[CJW agrees with the commentor - editorial mistake.]
401	While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report's introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.	The 2023 Eelgrass Survey report was considered during the survey-level PEL Study to inform scoring in screening of alternatives. It is certainly possible additional eelgrass surveys will be needed to provide adequate and appropriate data for a robust NEPA analysis of proposed alternatives. The Work Plan for the study specifically notes the survey would be conducted at low tide and states: "If the selected alternative has eelgrass present in its alignment, a more thorough eelgrass survey should be conducted prior to Project initiation.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Tier 1 Eelgrass Delineation Report (Feb 2024)	timing at low tide was presented in the work plan for the eelgrass survey.
402	The "Previous Investigation" section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the "Previous Investigation" section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.	The NOAA-mapped eel grass within the Mendenhall Peninsula is outside of the study area and outside of the scope of the field survey.	SEALT	Emily Anderson, DOWL	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Previous Investigation	Commentor indicates the Previous investigation section (available information) about eel grass presence seems to be incomplete in the report. In addition, commentor asked about the date of ShoreZone data (Feb 2024)
403	A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.	Comment noted. Eelgrass survey was conducted in accordance with the work plan (dated September 2023)	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Methods	QC review: check that response is complete
404	The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For the purpose of this review, a revised results table with the needed tidal information in italics is shown below.	Comment noted.	SEALT	CJW	17	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	

405	Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.	Comment noted. The eelgrass field survey was conducted in accordance with the work plan (September 2023). Limitations of the survey are acknowledged in the work plan and report.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	
406	While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.	Comment noted. Limitations of the survey are acknowledged in the work plan and report.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Results	QC review response
407		Acknowledged.	SEALT	CJW	18	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Correction for Table 2: Alignment Traverse and Tide Stage	
408	The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	Do we need a more robust defense of the eelgrass survey and report?
409	The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.	Comment noted. During development of the affected environment information for the NEPA analysis, SEALT will be consulted to ensure all available and relevant data are considered.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
410	While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
411	In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
412	Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
413	The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
414	Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel.	Comment noted.	SEALT	CJW	19	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
415	Even with some eelgrass on the Falls Creek delta, the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Maps	
416	DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores	Information from the Bridge Volume Forecast Memo is considered for the Purpose and Need for the project and addresses traffic forecasts for each alternative.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	Need an assist on this response abou the Bridge Vol Forecast

417	The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
418	A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
419	After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.	Comment noted. **[Is further explanation needed about return to current traffic volumes in 10-12 years?]**	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	Seems to need an explanation about traffic volumes on the existing bridge after construction of an alternative.
420	By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
421	The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.	Comment noted.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
422	It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	SEALT	CJW	20	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Review of Bridge Volume Forecast Memo (Feb 2024)	
423	PEL Study Should Be Data- As Well As Process-Driven ● Well-defined and transparent public process ● Coherent and defensible data-based results ● Not meant to circumvent regulatory responsibilities ● Communication to and understanding by stakeholders and technical advisors	Comment noted.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	
424	These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.	The surveys noted by the commenter (assumed to be the wetland delineation, eelgrass survey, etc.) were conducted to address identified gaps in available information needed for the survey-level PEL study. Additional studies are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	Theresa review needed.
425	In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Process & Methodology	Theresa review needed.
426	DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	Emily Anderson, DOWL	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2024	Theresa. Need some history of development of the scoring methods.
427	"High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	SEALT	CJW/TD	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2025	TD - comment 425 - 433 are about the scoring categories - some history there to address.
428	For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.	Comment noted.	SEALT	CJW	21	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2026	
429	The score for "Important Migratory Bird Habitat Impacted" would have been determined by the acreage of habitat impacted by construction.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2027	Changes based on SEO comments - notes to "use the ADF&G provided info." What is this? The letter of 2/3/2023?

430	For “Section 4(f)/6(f) Resources Affected”, the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual’s instruction on 4(f)/6(f), whereas the current measure does not.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2028	
431	“Protected Lands Directly Affected” would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.	Recommendation noted.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2029	
432	“Effect on Visual or Scenic Quality of Surrounding Area” was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.	To avoid scoring discrepancies, some criteria were dismissed until further into the NEPA process to determine its exact methodology of measurement.	SEALT	Emily Anderson, DOWL	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2030	
433	The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Screening Elements from 2022-2023 Missing in 2031	
434	We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.	Comment noted.	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	
435	However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.	The No build alternative would not meet the purpose and need. However, the No Build (i.e., No Action) alternative is required to be equally considered among the other alternatives carried forward through the NEPA analysis, and thus was included in the screening table. As noted by the commentor, the PEL Study was not designed to analyze whether the No Build alternative is the best choice.	SEALT	CJW	22	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	May need a TD tweak in wording
436	Scoring a No Build alternative at 0 for criteria such as “Avoid, minimize, and mitigate negative impacts to the environment” is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive).	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Scoring Methodology	TD check my assumption here.
437	It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Weighting the Criteria	(from TD response to comment 10)
438	Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW/TD	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Weighting the Criteria	(from TD response to comment 10)
439	The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	
440	The range of -2 to +2 lumps moderate impacts with severe impacts, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.	Mitigation requirements and measures are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies as they typically determine specific mitigation measures.	SEALT	Emily Anderson, DOWL	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	

441	Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion “Avoid, minimize, and mitigate impacts to the environment” scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL’s current scoring to see that difference.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive). The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	CJW	23	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	TD, check my approach on this one.
442	In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	The Need for Granularity	
443	With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
444	Mendenhall Wetlands State Game Refuge Management Plan: The Refuge’s Management Plan states that the Refuge was “established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation.” All alternatives crossing through the Refuge are inconsistent with Refuge’s Management Plan, which provides guidance on managing the Refuge to achieve this purpose.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
445	USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
446	2013 CBJ Comprehensive Plan: The alternatives located within the Refuge’s boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states “To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards.”	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
447	2013 CBJ Comprehensive Plan: The Plan notes in Chapter 9 that “Natural, undeveloped areas…are an essential component of the CBJ’s community form and identity. They should be maintained and enhanced.” The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
448	2013 CBJ Comprehensive Plan:The Plan notes in Chapter 9 that “Natural, undeveloped areas…are an essential component of the CBJ’s community form and identity. They should be maintained and enhanced.” The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	24	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	This is a duplicate comment of 445.
449	2013 CBJ Comprehensive Plan: As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
450	2013 CBJ Comprehensive Plan: Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	

451	Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
452	Marjory and Edgar Huizer Fishing Access Site Management Plan: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
453	Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "...may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until: "(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an alternative other than a Sunny Point alternative; and "(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record. "Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law." *There are additional consequences written into the deed for a condemnation proceeding which can be provided upon request.*	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	25	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
454	Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.	Comment noted.	SEALT	CJW	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Level 2 Screening: Conflicts Between Alternatives and Existing Plans	
455	The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024. The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	Emily Anderson, DOWL	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	Theresa: there are several comments (455-470)regarding functional assessment by SEALT and their contractors - is a "comment noted" sufficient?
456	For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershedbased areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.	The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	Emily Anderson, DOWL	26	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
457	See table 1: WESPAK-SE Protocol - Functions and Values	Comment noted.	SEALT	CJW	27	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
458	See figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas	Comment noted.	SEALT	CJW	28	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
459	Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.	Comment noted. The use of an additional functional assessment protocol for the PEL Study will be up to the discretion of DOT&PF and CBJ.	SEALT	Emily Anderson, DOWL	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
460	Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
461	As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
462	See Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	

463	Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
464	While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
465	The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.	Comment noted.	SEALT	CJW	29	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
466	At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
	WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the "High" range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL's project maps.	Nominated streams are not shown on the ADF&G Anadromous Waters Catalog. Moreover, the maps such as the ones located within the Wetland Delineation report shows mapped streams not shown on the database on the Douglas Island side of the Mendenhall Peninsula alignment.	SEALT	Emily Anderson, DOWL	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	Were the ADF&G nominated streams available at the time of the DOWL PEL study? AND what DOWL project maps does the comment refer to? -
468	Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
469	The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT's tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.	Comment noted.	SEALT	CJW	30	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT's Functional Assessments	
470	The Sunny Point East alternative's impact quantification for the criterion "Protected lands directly affected through SEALT" includes an estimate of 0.006 acres of SEALT land under the final project design.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
471	The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled "Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing" therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	Is this attributable to a typo in acreage?
472	Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
473	This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL's work where very little seems to exist.	Comment noted.	SEALT	Emily Anderson, DOWL	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	Significant figures misrepresentation?
474	ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL's assertions that cannot be verified easily and immediately by reliable data and qualified analysis.	*Opinion. Comment noted. Seems to be a premature judgement based on planning-level screening appropriate for this stage of the PEL study vs. robust analysis at the NEPA level….[or something like that…]*	SEALT	CJW	31	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	False Precision in DOWL's Calculations	
475	In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.	Comment noted. Also, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	CJW	32	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	

476	See Figure 2: Acreage of Impacts by Alternative	Acknowledged.	SEALT	CJW	32	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
477	See Figure 3: Percentage of Habitat Impacts by Alternative	Acknowledged.	SEALT	CJW	33	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
478	See figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	34	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
479	See Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	35	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
480	see Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	36	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
481	See Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	CJW	37	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
482	See Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	SEALT Calculations of Impacts to Habitat by Alternative	
483	All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.	Comment noted.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Wetlands Owned and Stewarded by SEALT	
484	It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.	Comment noted.	SEALT	CJW	38	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Wetlands Owned and Stewarded by SEALT	
485	The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East	
486	The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point West	
487	The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.	Comment noted.	SEALT	CJW	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point West	
488	The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW, DOWL from M. Hall, Parametrix	39	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	

489	The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
490	SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "…to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
491	All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
492	Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.	*[explain or direct commentor to support for the alternatives selected for screening]*	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
493	It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.	Opinion. Comment noted. Public Interest Review is integral to the NEPA process.	SEALT	CJW	40	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Not sure this is "Impacts to Bird Habitat." Need to address critical comment about PEL process?
494	The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.	**Opinion. "Convenience" is not a criteria considered by engineers in development of alternatives nor NEPA analysis. DOWL takes exception to the implication otherwise. [also need to address "not credible" regarding bird habitat ratings]**	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
495	The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.	Comment noted. All publicly available applicable and relevant information would be considered and incorporated as appropriate during a future NEPA process.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
496	The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
497	The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.	Comment noted.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	

498	The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.	Comment noted.	SEALT	CJW	41	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
499	It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Need understanding of the "Hotspots" study.
500	For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	Need understanding of the "Hotspots" study.
501	eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
502	"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impacts to Bird Habitat Not Considered by DOWL	
503	The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall "first tier" hotspots on the Mendenhall State Game Refuge. For this analysis, the "bird count" incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as "first tier hotspots." The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.	Comment noted.	SEALT	CJW	42	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
504	Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Shortbilled, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the deltaedge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	

505	Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
506	Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.	Comment noted.	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Salmon Creek	
507	The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and "refuge" area for SEALT Comments - JDNC PEL Study Level 2 Screening 44 Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Redwinged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a "nearby hotspot" in the Hotspots report (Armstrong et al., 2004, p 34).	Comment noted	SEALT	CJW	43	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	
508	The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six "second tier hotspots" and as a top "seasonal hotspot" in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	
509	The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Twin Lales	

510	The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or “Pioneer”) marsh, noted SEALT Comments - JDNC PEL Study Level 2 Screening 45 above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).	Comment noted.	SEALT	CJW	44	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
511	The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
512	The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this littledisturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
513	The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area’s function as “refuge within the refuge” would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.	Comment noted.	SEALT	CJW	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Vanderbilt	
514	The Level 2 Screening bird habitat rating of the Sunny Point East alignment is “0” - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	CJW EA	45	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	

515	The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
516	The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
517	In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Shorteared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
518	At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).	Comment noted.	SEALT	CJW	46	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
519	With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Sunny Point East, Sunny Point West	
520	The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 "first tier hotspots" in the Hotspots study (Amstrong et al., 2004). Designated as "first tier" for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
521	Clearly, the PEL bird habitat impact rating of "zero" for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	CJW EA	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	

522	It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the “top hotspot” and “probably among the most important feeding habitat for ducks and shorebirds” on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud, barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and highconservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird’s Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.	Comment noted.	SEALT	CJW	47	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
523	The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow’s and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Redbreasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a “floating boundary.”	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
524	To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
525	To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as “second tier” hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
526	On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a “top winter season hotspot” with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)	Comment noted.	SEALT	CJW	48	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mendenhall Peninsula	
527	Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.	Comment noted.	SEALT	CJW	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Aviation Safety Resulting From Impacts to Bird Habitat	
528	Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including the Juneau and Douglas terminus of each alternative.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impervious Surfaces	
529	Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including Hendrickson Point.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Impervious Surfaces	
530	DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:	Comment noted.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	

531	Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.	Comment noted.	SEALT	Emily Anderson, DOWL	49	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
532	From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.	The data is based on a survey conducted in 2022 before any field surveys were conducted to gain interest between the build and no build alternatives. The survey asked between build alternatives which was preferred.	SEALT	Emily Anderson, DOWL	50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
533	In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be "No Build" supporters. However, commenters who selected more than one Build alternative were counted in both alternatives' level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
534	It is unclear that the "level of public support" is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.	**[Public Interest Review/NEPA process]**	SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
535	DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Public Support	
536	DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL's estimates.	Comment noted.	SEALT	Emily Anderson, DOWL	50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
537	1. Did these estimates consider repairs to the existing bridge? 2. How will maintenance change for existing roads on the mainland and Douglas Island? 3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates? 4. Did the estimates consider additional lanes for a new bridge as part of this? 5. How will a second bridge's construction and maintenance impact the maintenance of the existing bridge over the long term?		SEALT		50	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
538	Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL's estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.	Mitigation requirements and costs are not known. Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
539	Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.	Comment noted. The airport based alternative did not move through the alternatives screening process.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
540	Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.	Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Costs	
541	The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.	Comment noted.	SEALT	CJW	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
542	As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.	Mitigation requirements are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
543	SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.	Mitigation requirements and costs are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	51	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	

544	While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.	Comment noted.	SEALT	CJW	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
545	However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report: 1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands. 2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly. 3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.	Comment noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Mitigation	
546	Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.	Comment noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Conclusions and Recommendations	
547	The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
548	"Avoid, minimize, and mitigate negative impacts to the environment" should be a core goal of the PEL Study rather than an "additional goal".	Recommendation noted.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
549	The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without vetting the survey protocols or explaining how these reports would be "rolled into" a future NEPA process.	All survey protocols were vetted through the appropriate jurisdictional agency prior to fieldwork through approved workplans. These reports are considered pre-NEPA and used to gauge general impacts and study area characteristics.	SEALT	Emily Anderson, DOWL	52	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
550	The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.	Potential mitigation requirements and needs are not known for any of the alternatives. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Outstanding Concerns	
551	Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.	Comment noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
552	"Low Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
553	"High Marsh" Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
554	Fishing (Social) - impacts to sport fishing according to ADF&G	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
555	Hunting (Social) - impacts to waterfowl hunting according to ADF&G	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
556	Recreation (Social) - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
557	Cultural Uses (Social) - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
558	Aviation Approaches (Safety) - impacts to aircraft approaches according to FAA	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
559	Aviation Facilities (Safety) - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
560	Navigability of Gastineau Channel (Safety) - impacts to navigability for each alternative according to USCG	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
561	Mitigation Site Replacement (ROW) - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
562	Protected Lands Replacement (ROW) - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures	Recommendation noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	

563	Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini. Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.	Comment noted.	SEALT	Emily Anderson, DOWL	53	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
564	Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.	Comment noted.	SEALT	Emily Anderson, DOWL	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Additional Criteria	
565	The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.	Comment noted	SEALT	CJW	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
566	1. No Build a. All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex. b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the farreaching material impacts to those resources from bridge construction in a cost-benefit analysis. c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement. d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.	The existing conditions and data reviewed to develop the purpose and need statement included the limited connection between Juneau and Douglas Island and the risks associated with it, emergency response and access to workplace or other critical resources, traffic pressure on the Douglas Island Bridge and its intersections, and the housing shortage in Juneau. Other types of transportation alternatives were analyzed but dismissed due to not meeting the approved Purpose and Need for the project. A more robust NEPA analysis will be conducted outside of the PEL Study.	SEALT	Emily Anderson, DOWL	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
567	2. Salmon Creek a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points SEALT Comments - JDNC PEL Study Level 2 Screening 55 b. Minimal functional impacts to SEALT mitigation sites c. Fewer regulatory and permitting requirements for impacts to protected resources d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek e. Lower mitigation costs f. Shortest intertidal crossing and use of existing interchange reduce impacts	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW	54	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
568	3. Twin Lakes a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources c. Would shut down important waterfowl hunting areas on the Refuge d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini e. Moderate to high mitigation costs	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
569	4. Vanderbilt a. More damaging to salt marsh, habitat connectivity, and Refuge integrity b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area c. Moderate functional impacts to SEALT mitigation sites d. Would shut down important waterfowl hunting areas on the Refuge	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
570	5. Mendenhall Peninsula a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	

571	6. Sunny Point West a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	55	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
572	7. Sunny Point East a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration. Recommendations to PEL Study Team and Future Second	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	CJW/EA	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
573	In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.	Recommendation noted.	SEALT	Emily Anderson, DOWL	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Recommendations to PEL Study Team and Future Second Crossing Project Reviewers	
574	The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	
575	This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	CJW	56	Southeast Alaska Land Trust Juneau Douglas North Crossing PEL Study Level 2 Screening - Comments	Ranking of Alternatives	comment on the PEL "process."

Comment Number	Comment	Response	Commentor	Responder
1	Given the simplicity of the current PEL Level 2 scoring system and the need for more robust data collection and assessment with best available data, we do not believe that any of the current alternatives, including the only remaining off-refuge alternative at Salmon Creek, should be excluded from a future NEPA process based on their relative Level 2 scores. We offer a few suggestions for improving the scoring so the public, agencies, and Advisory Committees can transparently compare the benefits and impacts of different options. However, even if these recommendations could be fully realized with existing data, because more robust data collection is needed, all alternatives should still be retained going forward (unless fatal flaws are uncovered - e.g. interference with airport, inability to get Coast Guard approval, geotechnical limitations).	Comment noted.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
2	The underlying environmental data used throughout the PEL, including the Level 2 Scoring, is inadequate and/or not the best available in some cases (specific examples below). Concerns about the incorporation of the best available data and meaningful engagement with experts in creating and evaluating criteria have been expressed throughout the process by Southeast Alaska Watershed Coalition and other members of the stakeholder and technical advisory committees and have yet to be fully addressed.	Comment noted.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
3	Wetland Delineation: Incorporate the best delineations and wetland value/function. SEALT's recent wetland delineation is the most accurate and recent delineation available. This information was not used in this process, instead older and rapid assessments along with NWI continue to be used.	The SEALT wetland delineation was not publicly available at the time of drafting the Level 2 screening. The PEL study team completed fieldwork and updated the wetland mapping to reflect current conditions, the resulting data is used in the Level 2 scoring.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
4	Wetland Impact: Level 2 scoring only considers the number of acres affected, potentially discounting the true environmental impact. Including additional wetland data such as wetland type/value/function, would help provide a more accurate representation of the impacts. "High value wetlands" was included as a criterion in the Recommended Alternative Selection Criteria Memo (February 2023) for Level 2 Scoring yet were not included in the Level 2 Scoring.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
5	SEALT mitigation property impacts – ensure these are accurate.	The PEL study team has reviewed the SEALT mitigation property impacts and confirmed the findings.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
6	Essential Fish Habitat limits and application (per NOAA's comments during joint Advisory Committee meeting 3/7/24)	The EFH category was removide following the recommendation from NOAA Fisheries. EFH impacts are considered in intertidal habitat and anadromous streams.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
7	Impacts to anadromous streams - The metric used in Level 2 only addresses the number of streams. While an important rough assessment of impacts to anadromous streams (i.e. Level 1 Scoring), it does not capture the value of anadromous streams (i.e. stream miles, quality of habitat, number of species, habitat type, run size). Additionally, what would impacts look like? Are the structures just in the vicinity of the streams? Would streams have to be re-routed? New culverts installed? These types of issues add a lot of nuance to the existing criteria and could help compare impacts in a much more meaningful way.	A more detailed evaluation of impacts and fish habitat will be undertaken during a NEPA analysis.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team

8	Migratory bird habitat impacts – Level 2 Scoring uses the number of nests as a metric for assessing migratory bird habitat. This only takes into account one component of the lifecycle of migratory birds and only includes species which nest in the areas impacted, excluding impacts to rearing, staging and overwintering. Integrating information from multiple sources would likely provide more nuance and a better picture of impacts (Armstrong et al 2004, ebird hotspots, local birding experts knowledge, ADF&G refuse managers). Would local bird experts agree with the relative impacts assessed by this scoring system?	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
9	Additionally, please make it clear when impacts are assumed to be within the footprint of the fill, the whole structure, or some proximate distance. Consult with experts to ensure these assumptions are reasonable (include justification in scoring) and that important qualitative differences in impacts across alternatives are incorporated in the scoring system.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process. The direct impacts will be clarified and buffers will be stated, when used.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
10	With all questions weighted equally in the current scoring system, those topics with more questions are weighted more heavily in the overall score. This weight may or may not correlate with the value attached to different types of impacts. Additionally, criteria with scores ranging from -2 to 2 have 40% more weight than those with a range from 0 to -2, or 0 to 2. We suggest separating criteria by benefit/impact type and calculating scores for each that can be compared across alternatives, and letting the public weigh in on what is most important to them. “Dealbreakers” may be hidden in an overall score if very low scores in one area are balanced by higher scores in another area that is less valued by the public.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
11	Potential categories for consideration: o PEL Needs (infrastructure resilience, emergency response, traffic congestion, etc.) o North Douglas Connection o Environmental impacts o Safety (include airport, Coast Guard) o Residential impacts o Visual, cultural, scenic identity o 4(h) impacts (as this is an additional regulatory issue on top of the environmental impacts themselves) o Mitigation properties impacted (as this is an additional regulatory and cost issue on top of the environmental impacts themselves) o Commercial impacts – (North Douglas Connection could be wrapped into this one, not just commercial properties) o Social impacts (add recreation impacts) o Cost o Public support (which should be reassessed after people have more information about the benefits and impacts of the different alternatives)	More detailed review of impacts would be undertaken during a NEPA analysis. The current impact categories have been reviewed and approved by the DOT&PF Statewide Environmental Office.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team

12	Within topic areas, criteria should be weighted in some way to reflect relative impacts. For example, why are impacts to existing homes and neighborhoods weighted the same as vacant residential areas? All wetland areas are treated the same. Etc. This was noted in issue 1 specifically related to environmental criteria but is relevant to all of others.	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
13	Negative scoring on No Build Alternative, and zero scoring on impacts. The current Level 2 Scoring results in the No Build Alternative scoring negatively for the Purpose and Need category. A no build alternative would keep things as they are/neutral (or is this score assuming lots of growth?). Make clear why this is not a neutral effect. As noted above, these are the only criteria with a 5-point scale, and individually have the most weight in the scoring system. In some cases, alternatives receive scores of zero for criteria where there are impacts, albeit smaller than the other alternatives. Any alternative with impacts should receive scores that are lower than the no-build. If the Low-Med-High scoring system seems insufficient to address differences among alternatives, consider shifting to a 5-point system for all criteria.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
14	A publicly available online mapper with underlying spatial data and the footprints of the projects would be extremely helpful for people to gain a more holistic understanding of the impacts of the different alternatives. This was requested previously.	A mapper of the alternatives and the environmental resource layers has been made publicly available.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
15	Clarify for each alternative what type of structure is being considered (assuming this will be with the level 2 report).	The Final PEL Study Report will reflect the structure types evaluated in the PEL study.	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
16	Please post the 2005 Draft EIS that was completed for the last round of planning with the other source documents on the project webpage. The summary document provided is short on important details.	The 2005 Juneau Second Channel Crossing Project Development Summary Report, commonly referred to as the Draft EIS is posted to the website under Previous Studies & Other Data	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team
17	Please share all comments submitted by members of the Advisory Committees and the public.	The comments will be shared with the Draft PEL Study	Rebecca Belmore, Southeast Alaska Watershed Coalition	PEL Study Team

18	The PEL process was chosen "to identify and evaluate a purpose and need for connecting Juneau with Douglas Island," to "provide opportunities for public input and involvement," and to improve "outreach and coordination by considering environmental, community, and economic goals early in the planning process." FAQ (December 2022). The PEL process has largely achieved these purposes. A suite of alternatives have been identified, all of which meet the purpose and need statement according to the Level II scoring tables. All of the alternatives should therefore be considered in an ensuing NEPA review and comprehensive engineering analysis, if a crossing project moves forward. The exception is Mendenhall Peninsula. It scores positively on the purpose and need for a crossing, but with an estimated cost 4 to 5 times higher than any of the other alternatives, is not a realistic option and does not warrant further expenditure of resources to review its merits. Our specific comments below assume that this option is not viable and we will therefore focus only on the options from Sunny Point to Salmon Creek.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
19	We also understand that the scoring tables are based on the premise that, save for small portions of wetlands that might be filled in constructing intersections at their termini, all of the options would be built on pilings or an elevated structure. DOWL has previously acknowledged this aspect of the project and should reinforce this point in the final PEL report.	The Final PEL Study Report will reflect the structure types evaluated and assumptions (such as pilings) made in the PEL study. The typical sections for each of the crossings are shown on pilings.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
20	We caution against assigning too much significance to the screening results in the final PEL report. The scoring methodology is subjective and leaves considerable room for debate regarding how criteria were identified and scored, how the criteria and scores of the alternatives are weighted, and the effect of some issues not being meaningfully considered. The scoring tables should instead be regarded as preliminary, and though informative, should not presuppose how the alternatives would rate after a rigorous NEPA review and engineering analysis.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
21	As noted above, all of the alternatives score positively in meeting the purpose and need for a second crossing. But we question the scores assigned for some of the criteria.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
22	Salmon Creek scores + 1 point for transportation infrastructure resilience whereas the other options all score + 2. The explanation is that Salmon Creek is the closest to the existing bridge and therefore provides the least resilience in the event that "natural disasters or accidents ... block both crossings." Salmon Creek is two miles away from the Juneau-Douglas bridge, and we fail to understand what sort of event might theoretically block both but have no impact on any of the other alternatives.	This criteria was removed from the Final Level 2 scoring.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
23	All of the alternatives score equally for decreasing traffic on the existing bridge, at + 1. This is contradicted by the Bridge Volume Forecast Memo, which shows that crossings at Twin Lakes or Salmon Creek reduce volume on the existing bridge much more than any of the alternatives farther west.	These scores were updated to reflect the volume of vehicles that would choose an alternative crossing. Alternative that had a higher percentage to likely choose them now score higher under this criteria.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team

24	Twin Lakes and Salmon Creek score + I for improved travel time whereas the other alternatives score +2. The question is, improved for whom? The explanation for the disparity focuses on providing alternative access "during the closure of the existing bridge or another single route closure ... " Were the existing bridge closed for some reason, residents of Douglas and West Juneau, where the majority of island dwellers live, would benefit from having a crossing closer in if they wanted to drive downtown.	These scores were updated to reflect that all alternatives except Mendenhall Peninsula would provide on average up to 65 second travel time savings (the largest time savings).	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
25	All of the alternatives score -2 for avoiding, minimizing, or mitigating adverse impacts to the environment. We disagree that all of the alternatives have the same potential for adverse environmental impact. Salmon Creek, for instance, is outside the Mendenhall Wetlands State Game Refuge (MWSGR) and is the shortest of the crossings. Why is it scored the same as crossings at, say, Sunny Point, which would entail considerably more impact to sensitive habitat? In fact, in the succeeding section of the tables concerning environmental considerations, Salmon Creek scores a cumulative -8, which is the least impactful of all the alternatives under the criteria listed. Giving this alternative an equivalent score of -2 on overall environmental impact is contradicted by the assessment of specific environmental considerations.	This score is based on the cumulative score of all environmental criteria (sum of scores in the "natural" category). Following edits to the scoring, this criteria was update to reflect the cumulative Final Level 2 scores for the natural environment.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
26	The different scores for impacts to residential areas are also difficult to understand. All of the crossing alternatives would disrupt our neighborhood in one way or another, even if impacts to individual residences or discrete areas varies among them. For instance, Twin Lakes is scored at 0 - meaning no adverse impacts - which we understand is a function of a proposed terminus on currently vacant land just north of the heliport. But as the explanatory notes indicate, there are residential properties in the area which could be affected, even if not directly, and a score of -1 would be more appropriate. There is also a disparity in the scoring for Vanderbilt and Salmon Creek versus the Sunny Point alternatives. The former score -2 due to six or seven direct impacts and potentially 18 or 16 indirect impacts, respectively, whereas crossings at Sunny Point east and west are said to have two direct impacts and 15 to 48 potential indirect impacts but only score -1. This differential scoring is hard to reconcile.	The impacts were revised based on decoupling direct impacts and impacts within 100 feet of residential property to eliminate duplicative impact counts. Please see the revised scoring. Impacts that were at least double the next highest impact (e.g., 28 to 10) received poorer scores.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team

27	Under this category, the Sunny Point west alternative scores a cumulative -13 whereas the Sunny Point east alternative scores a cumulative -9, even though both would traverse a similar area of the MWSGR and would actually use the same corridor for half the crossing. This differential mainly reflects two things. One is neutral scoring for Sunny Point east on several factors: impacts to fish habitat, wildlife habitat, and migratory bird habitat. Why this alternative scores zero on these and other criteria, when Sunny Point west scores negatively on the same ones, is difficult to understand. The other is that Sunny Point east is projected to '"directly affect" only 1.3 acres of wetlands whereas Sunny Point west would affect 7.2 acres. DOWL explained to us that the measure for this criterion is how many acres of fill would be needed to construct an intersection with Egan Drive, and that since Sunny Point east already has an interchange, a lesser amount of fill would be required. We take issue with such a narrow interpretation of what it means to "directly affect" wetlands. Any crossing through the MWSGR will have significant impacts on the refuge environment, regardless of the extent of fill needed to construct intersections at each end. Also, the impacts of bisecting the MWSGR with an elevated roadway must be assessed across the entire refuge, not just focus on a 100-foot buffer on either side of each crossing alternative, which we understand the current analysis entails. Nor is it apparent that other impacts from a crossing- including air and noise pollution - were among those considered in the evaluation of crossing locations.	The differences in level of impact from for Sunny Point East and Sunny Point West are largely due to the intersection build out on the Egan side required for Sunny Point West. Sunny Point East would connect at an existing intersection requiring less of a build out for the intersection and therefore less ground disturbing impact. The PEL study team acknowledges indirect and cumulative impacts may exist for alternatives. Indirect and cumulative impacts would be evaluated during a NEPA analysis. Air and noise pollution would be evaluated during a NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
28	Both of the Sunny Point alternatives share a terminus on North Douglas on CBJ land at Hendrickson Point. As discussed in NDNA's comments on the Level I screening results (dated March 23, 2023), Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). It's an ecologically sensitive area with important upland habitat adjacent to the Mendenhall Refuge, and is frequently used by residents in the area. We encouraged the PEL study team to consider the status and environmental values of this area in the Level II screening process, but see no indication that this was done.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
29	All of the alternatives score -1 for affecting section 4(f) and 6(f) resources. The resource in question is the MWSGR. The explanation provided for this score is that each of the alternatives "has the potential to impact an identified Section 4(f)/6(f) resource." The word "potential" is misleading for crossings at Sunny Point east and west, Vanderbilt, and Twin Lakes, each of which would bisect the MWSGR. A crossing that traverses the MWSGR is certain to impact the refuge. Conversely, a crossing at Salmon Creek would be outside the refuge, or at most may nick a corner of it, and warrants a lesser score than the others. We suggest leaving Salmon Creek at -1 but adjusting the scores of all the others to -2.	There are more 4(f) resources in the PEL study area than the MWSGR. Each resource was treated equally. The scores reflect the number of 4(f)/6(f) resources that each alternative directly impacts.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team

30	The reference to section 4(f) presents another issue not directly reflected in the scoring tables, but which should be addressed in the final PEL report. As discussed in the Technical Memorandum dated February 17, 2023, section 4(f) of the Department of Transportation Act of 1966 prohibits using subject land for a transportation project unless two conditions are satisfied: (1) there is no prudent and feasible alternative that would avoid use of the section 4(f) resource, and (2) the project includes all possible planning to minimize harm to that property. Under the first of these standards, Salmon Creek will have to be considered as a crossing alternative in a subsequent NEPA process and comprehensive engineering analysis, even if it ends up with the lowest score in the final PEL report. The PEL study is only a preliminary phase of a crossing project, and it would be premature at this point to conclude that Salmon Creek is not a prudent and feasible alternative.	The criteria listed in this comment as (1) and (2) are correct if a future project undergoes a 4(f) individual analysis. It is unclear what level of 4(f) analysis a future project would undergo, whether that be exception, de minimus, or individual analysis. Each level of analysis has differing criteria.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
31	The criteria under this category are very general and do not shed much light on the extent of impacts to the North Douglas neighborhood.	Comment noted.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
32	One issue not reflected in the scoring criteria is the impact to non-motorized recreational use of the MWSGR and adjacent zones, especially in the area from Lemon Creek to the west side of Sunny Point. All sorts of folks use these wetlands: hunters, fishers, birders, dog-walkers, cross-country skiers and snowshoers, and those who simply like to traipse around this extraordinary area. A crossing that traverses the MWSGR would have a significant effect on these users, limiting their ability to enjoy the area and effectively confining them to one side or the other. Hunters in particular could be affected. The general standard for state highways is no shooting within a quarter mile of a road, which, if applicable here, would mean that a swath of the refuge a half mile wide would be off limits to hunters.	Additional consideration of recreational use of the MWSGR and other park areas would be undertaken during a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
33	These two categories have three identical criteria for housing and economic impacts: uses directly affected; being located within 100 feet of a residential property or commercial use; and acres of vacant land affected. The.first two of these are redundant and have the effect of overweighting these considerations. This problem manifests especially for Salmon Creek. This alternative has a cumulative score of -9 under these two categories, which is more than half of its total score of -14.	There are various types of impacts that can occur to residential and commercial properties, as reflected in the scoring. The scoring differentiates between full or partial parcels counts and acreage amounts, and occupied or vacant land	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
34	The notes regarding this criterion focus on the number of individual "conflict points (driveways or intersections/lanes)" that each alternative has. The specific conflict points for each are not identified, which limits our ability to evaluate the scoring on this issue.	Conflict points are directly related to the number of intersections that cars have to pass through on specific routes. Alternatives that result in fewer overall vehicle miles traveled have fewer conflict points because cars traverse fewer intersections. At a planning level, this is the extent of the evaluation for conflict points. Typically the alternatives that give motorists more options for travel and are closer to the north end of the island result in fewer vehicle miles e.g. Mendenhall Valley traffic doesn't have to go all the way downtown to access Douglas Island	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team

35	More significantly, confining the analysis to conflict points ignores the much larger issue of traffic and safety on the North Douglas Highway generally. Residents of North Douglas are acutely aware that the highway through our neighborhood is not suited to a high volume of traffic, is at or close to capacity, is unsafe for pedestrians and vehicles entering and exiting the many driveways along the road, and that these problems are only going to get worse as development on north and west Douglas Island expands. The Level II screening results do not adequately reflect these concerns or provide any suggestions for addressing them. This is especially so regarding the possibility of a bench road above the current highway.	The Study has identified the community's desire and the need for a bench road and this has also been identified in prior planning studies. We agree that Douglas Highway serves a broad range of functional uses (arterial, collector, local) since there are no alternative streets. A more northern crossing would reduce conflicts on Douglas Highway by reducing the length of Douglas Highway that cars would have to drive to access Lemon Creek, Mendenhall Valley, and Auke Bay.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
36	The concept of a bench road on North Douglas Island has been part of the discussion surrounding a second crossing for decades. The idea is to divert traffic off the North Douglas Highway and thereby alleviate safety concerns for this neighborhood arterial, in much the same way that the Lena bypass rerouted northbound traffic away the Auke Rec and Lena neighborhoods. In our comments on the Level I screening results, we encouraged DOWL to evaluate the alternatives based on their potential for connection to a bench road: [T]he analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose. The Level II screening analysis failed to pay heed to this request.	The bench road concept is not considered in this analysis. It may be considered in a future NEPA analysis.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
37	The explanatory notes provide DOWL's calculation of the number of total acres of right of way that would be needed in relation to each alternative and how many parcels would have to be acquired (through purchase or eminent domain). Similar to our comment on conflict points above, without knowing which parcels would be affected, it is difficult to comment on this criterion. DOWL should clarify specifically where ROW acquisition will be required.	The public mapper provided by DOWL provides an opportunity for individuals to see where the alternatives are proposed to land on both the Juneau and Douglas sides of the study area. https://gis.dowl.com/portal/apps/instant/portfolio/index.html?appid=85cb7911192e4c7a94568f629f3aa9c0	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
38	The draft impact table attempts to measure the level of public support for each of the alternatives based on "comments received." From the presentation to the stakeholder advisory committee, we understood this was simply an enumeration of public comments made at different times, either directly to DOWL or at public open houses and other meetings. This would not be a statistically valid approach to gauging public opinion regarding the community's preference for a crossing location, or whether one should be built at all. In our subsequent discussion with DOWL, they clarified that a fom1al survey of public opinion actually was conducted and that the numbers presented in the impact table reflect the results of that effort. DOWL should publish that survey on the JD North Crossing website, so that the public can review the methodology and results. In particular, we would like to know how many North Douglas residents were included in the survey. We are unaware of any of our neighbors who were.	Agree, and 'comments received' was an erroneous description of the measure of public support. The public support was based on an objective survey as described in the scoring table rationale.	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team

39	NDNA has emphasized in all of its comments through the PEL process that it does not take a position on whether a second crossing should be constructed and if so, which of the alternatives is preferable. Nothing in the foregoing comments should be interpreted as favoring one alternative over another. Our primary interest in this process is to ensure that the impacts to our neighborhood are fully understood and evaluated, and as best as possible, avoided, minimized, and mitigated. For over two decades we have been asking for an area planning process for North Douglas - much like the CBJ has conducted for Lemon Creek, the downtown waterfront, and West Juneau - but to date nothing has come of this request. We recognize that a planning process for our neighborhood is not within the scope of the PEL study, but we are compelled to restate our interest in such a process for the benefit of others who may be in a position to initiate one.	Comment noted	Michael Stanley, North Douglas Neighborhood Association	PEL Study Team
40	I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel). I hope this helps when updating the EFH layer in this public-facing mapping tool.	[From email exchange] This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study. I hope that my misunderstanding about the mapper does not lead you to think we didn't understand your overall messages.	Molly Zaleski, NOAA Fisheries	PEL Study Team
41	The acreage is not correct. SEALT owns and manages wetland mitigation sites set aside for the Juneau Airport's expansion in 2009 that would be impacted by both the East and West Sunny Point alternatives at the Juneau and Douglas termini. She added that the Sunny Point West alternative does not avoid impacts and requires an additional extension of road parallel with Egan Drive that directly crosses a SEALT mitigation site. She has identified these impacts in two different comment letters, but DOWL's reports and scoring tables continue to assert that there are no impacts at Sunny Point West, and minimal impacts at Sunny Point East. She asked when a consultation will occur where SEALT can confirm the correct impact acreage.	The study team verified the acreages are correct.	Southeast Alaska Land Trust (SEALT)	PEL Study Team

42	Where were impacts for Salmon Creek quantified?	DOWL responded that the impacts for all the alternatives are quantified in the documents that were distributed as part of Level 2 Screening in the impacts table. Renee added that the results in the impact table fed directly into the scoring process to enable scores to be assigned. Steve noted that the team would be happy to pull up the GIS database and have a conversation if there were additional questions.	Environmental Protection Agency (EPA)	PEL Study Team
43	She noted that mapping in the wildlife fish figure is misleading, stating that essential fish habitat text descriptions should be used to back up mapping. She commented that every alternative will impact fish habitat and additional study should be done on impacts to prey species, including herring, dolly varden, and trout. She would include a link in the chat with more resources for text descriptions and contact information. She would like early coordination to avoid data gaps.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries. Intertidal habitat and anadromous streams are considered Essential Fish Habitat.	NOAA Fisheries	PEL Study Team
44	A disservice has been done to the Mendenhall Wetlands State Game Refuge (Refuge) by not displaying the boundaries in project materials.	The MWSGR boundaries have been added to project materials.	ADF&G	PEL Study Team
45	Clarification on the acreages shown for the Sunny Point alternatives	N/A	ADF&G	PEL Study Team
46	Given the importance of estuarine wetland functions and the requirements for protection nationally, regionally, and in the setting of a public wildlife refuge, estuarine wetland acreage should be tallied separately. She stated both footprint within the displayed alignment strip and affected acreage beyond that (for example from drainage changes caused by fill, shading from a structure, or compaction and erosion from construction) should be included in the decision matrix, and that freshwater emergent and forested wetland acreage should be included separately. She noted it appears the Sunny Point alternatives potentially impact the highest acreage of estuarine wetlands, followed by Vanderbilt, and Sunny Point would also potentially impact the highest acreage of freshwater emergent palustrine wetlands. She asked why fill acreages are so different between East and West Sunny Point. She asked how tidal acreages were calculated, and why more was not measured at Sunny Point and Vanderbilt alternatives. She commented the wetland and resource acreage within the reports seem inconsistent the best data available. She added 4(f) resources affected should be reported by acreage within the alignment strip displayed, and there should be consideration of effects on 4(f) resources outside the displayed alignment strip. She continued that this should include the size of the overall 4(f) and the location of the disrupted area within it, noting that crossing through the center of a large refuge affects more users and more wildlife. She stated the PEL study report titled “Wetlands Delineation and Functional Assessment Report” does not include any functional assessments, and the delineations are not complete. She commented that the report leans heavily on NWI to fill in gaps in the surveys, which is unreliable for Alaska. She asked when DOWL was planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan, and what protocol would be used.	Wetland functions and values have been added to the Level 2 Screening.	SEALT	PEL Study Team
47	Both Sunny Point alternatives are underestimating impacts to essential fish habitat because of the way that metric was calculated	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	PEL Study Team

48	Is the table showing public support and comments received for each alternative was depicting the number of comments in favor of the alternative, number of comments opposed, or comments generally?	The public support measure is the number of survey respondents who indicated supported for alternatives from the public comment survey sent out after Open House No. 2. Over 1,000 people responded to that survey, and participants were able to indicate support for more than one alternative	CBJ Assembly	PEL Study Team
49	Clarification on the definitions for wildlife habitat in environmental screening and important migratory bird habitat.	At the recommendation of the DOT&PF Statewide Environmental Office, "important migratory bird habitat" has been changed to reflect within the boundaries of the refuge. Wildlife habitat is classified as anywhere wildlife may be.	ADF&G	PEL Study Team
50	If there have been conversations about how criteria are weighted during scoring, including more qualitative information. She noted there are five criteria related to residential impacts and one criterion related to safety, which infers that residential impacts would be weighted more heavily than safety.	The study team worked through the screening criteria and presented it to the advisory committees, the DOT&PF Statewide Environmental Office (SEO), and other agencies throughout the process. He added screening criteria has been adjusted based on feedback and encouraged further feedback from participants. He noted there are more environmental criteria than other criteria. Renee added the scoring evaluation process will help the team recommend which alternatives could move forward into the NEPA process, and there are a lot of environmental impacts that need to be considered for each of the alternatives. She also encourages feedback from participants on improvements to scoring criteria.	Southeast Alaska Watershed Coalition	PEL Study Team
51	It would be helpful to score recreational impacts, especially hunting. Steve responded	The project team has incorporated recreational impacts into scoring. Renee added she would find more specific information.	ADF&G	PEL Study Team
52	Transparently scoring different categories (e.g. environmental, residential, safety, traffic improvements, etc.) individually would be helpful	Unclear on this comment. The PEL study team has scored categories individually and provided scores and justifications/rationale to provide transparency on the thought process.	Southeast Alaska Watershed Coalition	PEL Study Team
53	Why aviation safety is not listed as criteria under transportation safety, noting that if aviation safety is important, it merits a score?	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	SEALT	PEL Study Team
54	The difference between the approaches and the bridge structures shown in the footprints on the maps and asked for clarification on how far out into the wetlands the approaches would extend.	The approaches are in the abutments, and the issue would need to be evaluated in more detail in the NEPA process.	Mendenhall Wetlands Study Group	PEL Study Team
55	A publicly available online mapping tool with all the data layers and alternative structure footprints would be very helpful for the advisory committees and public to review these scores and think about impacts more wholistically. She noted difficulty in comparing different PDF maps with spatial data. Steve responded the study team would review and discuss the feasibility of this within the timeline.	The study team would review and discuss the feasibility of this within the timeline.	Southeast Alaska Watershed Coalition	PEL Study Team

56	Essential fish habitat (EFH) is not typically used in and of itself as an acreage metric and does not fit in the way it was used to compare alternatives using acres, rather it is a qualitative presence/absence of EFH species combined with a determination of adverse effects. She added in the analyses of adverse impact, the wetlands and anadromous waters are themselves and more broadly support EFH are sought to be avoided, minimized, and compensated for in their acreage impact. She noted that each alternative adversely impacts EFH and the relative impact as defined by acreage would be more accurately defined by wetland and riparian impact. Further, the quality of that impact would be higher for example, for estuarine wetland fill, as they are functionally more supportive of EFH than forested wetlands.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	NOAA Fisheries	PEL Study Team
57	One participant from the EPA asked if the project team could speak to the 4(f) process.	The purposes of the PEL study, the team identifies what the 4(f) properties are, what they think the potential impacts to 4(f) resources could be and determines if there are ways to avoid or minimize impacts to those resources. He added 4(f) permitting would happen during the NEPA process.	Environmental Protection Agency (EPA)	PEL Study Team
58	When the PEL study was expected to be completed and opportunities to comment?	The draft PEL study report was expected to be completed by the end of May 2024, followed by a 30-day comment period and a public open house in June 2024.	no name	PEL Study Team
59	how are potential impacts are calculated?	Most potential impacts are measured by acreage and number of resources potentially impacted.	no name	PEL Study Team
60	A participant requested information on the type of crossings evaluated being fill versus piling. Steve shared	The study design team assumed crossings on pilings based on feedback received so far and clarified the scoring is premised on this type of crossing structure.	no name	PEL Study Team
61	One participant asked where the newly located Bog/Fen was.	The project team responded that it was shown as the hatched area on habitat mapping.	no name	PEL Study Team
62	One participant asked for clarification on how information gathered during habitat mapping and migratory bird count helps supplement existing data. He emphasized that the report was well written, and the habitat mapping added useful data, but the information presented on bird species presence should not be considered useful as the time window of observation was inappropriately brief. He added this part of the study wasted time and money. A participant asked for clarification on how the data collected during the additional studies would be used.	The study team has tried to include as much data as possible and acknowledged the limited scope of data collection due to this being a planning-level study. The data is supplemental to the existing data collected during the baseline, largely confirming and augmenting that data.	no name	PEL Study Team
63	One participant expressed concern about how data was weighted during scoring.	Steve responded the data sets are maps, with each set of data adding a quantitative map to the database of information. He noted more specific data is needed to make design decisions, which will happen in the NEPA process. He invited participants to follow up for individual explanations of how data is weighted in the scoring criteria.	no name	PEL Study Team
64	One participant noted Southeast Alaska Land Trust (SEALT) and the Alaska Department of Fish and Game (ADF&G) are currently working on a comprehensive habitat remapping, expressing concern this data would not be included.	The PEL study team has used publicly available data and limited field studies to score the Level 2 screening. If data is not publicly available, the data has not been included.	no name	PEL Study Team

65	One participant commented they are concerned about alternatives being eliminated based on the narrow scope of the corridor.	Minor changes to the alternatives may still be made during the planning-level design process, and the scale of the areas surrounding each alternative are not being ignored in criteria evaluation.	no name	PEL Study Team
66	A participant expressed concerns the criteria lacked a mechanism to score potential impacts to undisturbed lands in relation to each alternative.	Undisturbed lands, such as vacant lands, have been considered when quantifying impacts.	no name	PEL Study Team
67	One participant expressed concern about the assignment of values for each criterion, noting focus on the relative environmental impact scores for Vanderbilt and both Sunny Point alternatives.	The project team responded the criteria need to be quantified to be compared. Specific value assignments are open for explanation and feedback for criteria. The study team requested participants to send written comments and questions, noting small group meeting will be set up to answer questions and receive feedback about environmental impact ratings.	no name	PEL Study Team
68	One participant requested clarification on the buffer zone around each alternative.	The study team responded buffer zones vary based on alignment and scoring criteria. In general, 100 to 200 feet is used for environmental impact analysis.	no name	PEL Study Team
69	One participant commented geophysical data should be used as a direct criterion in the alternative matrix.	The project team responded the results of the geophysical data cannot be quantified as a single value, but the data will impact other criteria such as the cost needed for different construction methods based on varying surface and subsurface conditions.	no name	PEL Study Team
70	One participant commented the public should have access to information about the airport's plans and potential conflicts, stating any conflict with the airport should be a criterion.	The airport is currently developing a new master plan, which will indicate long-term plans and potential conflicts, affirming no option will be considered that conflicts with the airport's current or future aircraft approach plans. DOWL has conducted meetings with the airport and the Federal Aviation Administration (FAA) to gather information on airport priorities and plans.	no name	PEL Study Team
71	One participant asked how essential fish habitat (EFH) is defined, noting EFH is too broad of a term to be used as criterion.	Essential Fish Habitat criteria removed at the recommendation of NOAA Fisheries.	no name	PEL Study Team
72	One participant expressed concern about using the criterion of public support in scoring, noting the Refuge was not shown on the study area and alternatives maps early in the PEL study. This could have significantly impacted the results of public support for alternatives enough to discount the results.	Public support was scored according to the responses to a 2022 survey. Additional public outreach would be undertaken during a NEPA analysis.	no name	PEL Study Team
73	One participant asked what qualifies an area as a wildlife habitat or a fish habitat.	Wildlife habitat is any habitat home to wildlife species, fish habitat is non-terrestrial habitat. Intertidal is habitat to both terrestrial and non-terrestrial species.	no name	PEL Study Team
74	One participant asked if the Coast Guard supports any of the alternatives.	It is too early in the process to get a definitive answer, but that the Salmon Creek alternative is the least flexible of the options in terms of proximity to navigable waters. The two options have been developed at different elevations based on height restrictions from the Coast Guard.	no name	PEL Study Team
75	One participant asked why the cost estimate for the Salmon Creek alternative is higher for a relatively short span.	The specific breakdown of cost analysis can be discussed in further detail, as estimates were only recently determined and will be published in the future. Generally the price per foot of bridge can vary widely depending on span and abutment construction details.	no name	PEL Study Team

76	One participant asked why the proposal for the Mendenhall Peninsula alternative includes the construction of a new road rather than tying it into the existing roads.	Residents on the Mendenhall Peninsula commented repeatedly the disturbance caused by development tying into existing roads would be significantly more impactful than the construction of a new road.	no name	PEL Study Team
77	A participant commented the criteria to include impacts to commercial property and impacts within 100 feet of commercial property are redundant. Renee requested participants submit written comments on criteria.	The PEL Study Team acknowledges that there are redundancies in scoring, particularly with impacts to the refuge and housing and economic criteria.		PEL Study Team
78	One participant expressed concern the study is being crafted to downgrade the Salmon Creek alternative to make the process of proving there are no viable alternatives outside the Refuge easier.	No alternatives are being up- or downgraded, but the criteria were created without knowing the scoring outcomes. The only interest is moving forward with alternatives that will not present fatal flaws later in the process.	no name	PEL Study Team
79	One participant asked if NEPA will reevaluate the environmental impact.	NEPA will evaluate all viable options at a deeper level as required by law.	no name	PEL Study Team
80	One participant asked what the cost of the higher elevation option would be at Salmon Creek.	The cost for the Salmon Creek alternative at a higher elevation has not been estimated.	no name	PEL Study Team
81	Several participants commented they would like to see the Salmon Creek alternative continue into the NEPA process as it is the only remaining off Refuge alternative.	N/A		PEL Study Team
82	One participant expressed concerns about longevity of the Salmon Creek Dam, and the need for a barge landing area, which would both be affected be the Salmon Creek alternative.	He noted the high cost of living in Juneau is affected by barging costs. The project team responded a barge landing study had not been conducted.	no name	PEL Study Team
83	One participant asked if ROW acquisition costs have been included in the evaluation.	The project team responded no; they did not want to inadvertently affect property values in these areas due to gathering data about potential acquisition values.	no name	PEL Study Team
84	One participant asked about the funding source for this project for construction and maintenance costs.	The project team responded the DOT&PF will be looking into grants for the construction phase of this project, in addition to STIP funding. Maintenance costs will involve CBJ.	no name	PEL Study Team
85	Why isn't the Refuge Management Plan, specifically regarding hunting and recreation, not noted in the scoring matrix?	Recreation and hunting are grouped into section 4(f) category, in addition to being delineated into habitat impacts. Theresa showed where Section 4(f) was noted on the scoring matrix.	Sue Rodman, ADF&G	PEL Study Team
86	Will the public understand that hunting and recreation opportunities are part of 4(f)?	There will be two additional narratives coming out: 1. Narrative of the Level 2 Screening results to provide further detail on the impact categories. 2. PEL Study, which will go out to the public for comment before it is finalized.	Sue Rodman, ADF&G	PEL Study Team
87	Why was there so little field work done prior to scoring?	Originally the study team used the extensive pool of baseline data for documentation but heard from agencies and the public that more data was wanted, particularly regarding birds in the Refuge. The team realizes more research will be needed in the NEPA process. The scoring criteria is based on existing data, and supplemented with the field work that was conducted.	Sue Rodman, ADF&G	PEL Study Team
88	Why do the Sunny Point alternatives not show the most impact?	The interchanges that are being proposed for each alternative affect the quantity of impacts.	Roy Churchhill, ADF&G	PEL Study Team

89	How does the study team define important migratory bird habitat and wildlife habitat?	Wildlife habitat was mostly mapped by vegetation and aerial signatures, and the species that would use that habitat were inferred by the habitat types that were identified. Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF	Roy Churchhill, ADF&G	PEL Study Team
90	Can the comments submitted to the PEL Study be made available to the public?	The draft PEL study report will include a public comment log.	Sue Rodman, ADF&G	PEL Study Team
91	Will the NEPA process include all current alternatives, or will some be eliminated before then?	Scoring will affect the answer to that question, to be determined.	Jesse Lindgren, ADF&G	PEL Study Team
92	What is the acreage difference between Sunny Point East and West?	Sunny Point West would add 32.2 acres of impervious surfaces, while Sunny Point East would add 7.9 acres of impervious surfaces.	Roy Churchhill, ADF&G	PEL Study Team
93	Does the impact table with values feeds into the scoring matrix?	Yes	Jesse Lindgren, ADF&G	PEL Study Team
94	Sue requested the GIS mapper be made available to the public, and the Refuge be shown on the map.	A GIS Mapper including the refuge boundary has been made publicly available.	Sue Rodman, ADF&G	PEL Study Team
95	The limited timeframe of the Bird and Habitat Surveys conducted in September 2023 provide a limited information. How will this information be used?	These surveys conducted to supplement the 15 or more desktop resources used for baseline mapping, including the Audubon Society eBird, hotspots from the Armstrong 2004, and the resources from the 2005 draft Environmental Impact Statement (EIS). Additional data quantifying bird populations would be required and occur during the National Environmental Policy Act (NEPA) phase of a potential future project, during the cumulative analysis.	Winston Smith	PEL Study Team
96	Will lack of public support for alternatives lead to elimination in level 2 screening?	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Winston Smith	PEL Study Team
97	How will public perception that bird surveys are complete be managed?	This fieldwork is supplemental and limited, and future fieldwork necessary to determine a preferred alternative under the NEPA process.	Winston Smith	PEL Study Team
98	Why would the Salmon Creek alternative, one of the shortest crossings, not be the least expensive and potentially one of the most expensive?	The cost for the Salmon Creek alternative is more disruptive to commercial property on the east side of the bridge, creating a higher cost.	Winston Smith	PEL Study Team
99	What happens next?	The study team is collecting advisory committee comments through April 11, 2024, based on expertise and environmental knowledge. The draft PEL study report would be available later in May 2024 and provide an opportunity for public comment, with a public meeting in June 2024.	Gwen Baluss	PEL Study Team
100	Have improvements to the existing bridge been considered?	This alternative had been considered and dismissed in level 1 screening as it did not meet the purpose and need.	Gwen Baluss	PEL Study Team

101	Have improvements to the Douglas Highway or a new road to handle additional traffic been considered?	The preliminary engineering shows the tie in of each alternative to the Douglas Highway. Douglas Highway improvements and additional roads not directly related to a crossing are not covered by this PEL study.	Brenda Wright	PEL Study Team
102	Would structures under consideration be piles or levies?	The Refuge Management Plan required structures on piles, and consistent comments have requested alternatives considered be on piles. Additional engineering would take place during the NEPA process.	Brenda Wright	PEL Study Team
103	Is the North Airport alternative still being considered?	This alternative was eliminated in Level 1 screening.	Brenda Wright	PEL Study Team
104	Will the GIS mapping be made publicly available?	The study team is actively working to get a public-facing GIS mapper available on the study website. (Completed 4/2/2024).	Gwen Baluss	PEL Study Team
105	Have you had a small meeting with the Mendenhall Wetlands Study Group folks?	An invitation to meet was extended to the Mendenhall Wetlands Study Group.	Michael Stanley	PEL Study Team
106	How do the Sunny Point alternatives have no impact to wildlife?	The study team tried to rate rank impacts in a quantifiable way, with direct acreage impacted. Indirect impacts would be assessed during the NEPA process.	Julie Berdarski	PEL Study Team
107	How are there only 2 acres of impact for the intertidal zone for the Sunny Point alternatives, and where are those two acres located?	The impacts were revised to consider the bridge decks as impacts to the intertidal zone. Quantities have been updated and alternatives rescored.	Julie Berdarski	PEL Study Team
108	How is the whole Sunny Point area not considered intertidal impact?	The impacts were revised to consider the bridge decks as impacts to the intertidal zone. Quantities have been updated and alternatives rescored.	Julie Berdarski	PEL Study Team
109	What natural disaster could affect both the existing bridge and Salmon Creek alternative?	Historical hazard data indicated landslides as a potential natural disaster that could impact the existing bridge and the Salmon Creek alternative.	Michael Stanley	PEL Study Team
110	Whose travel times would improve for the Salmon Creek alternative versus those crossing the middle of the refuge?	The Bridge Volume Forecast Memo notes travel time is significantly improved for users at the Mendenhall Peninsula alternative, though fewer users would divert to this alternative, than for Salmon Creek, though more users would divert to this alternative.	Michael Stanley	PEL Study Team
111	The residential scoring between Twin Lakes (0) and Salmon Creek (-2) seems skewed: no residences are located on the mainland side for either the alternative. What are the residential impacts for the Douglas Island termini for the Twin Lakes and Salmon Creek alternatives?	The scoring was based on number of land acquisitions needed and parcels impacted, which Salmon Creek had seven parcels impacted, and Twin Lakes had zero.	Michael Stanley	PEL Study Team
112	Why is acquisition of properties also scored as right of way?	Right of way is all rights of way, whether residential or commercial.	Julie Berdarski	PEL Study Team
113	How is the public support criterion measured?	This criterion is measured using data from a survey conducted following Open House No. 2, from December 2022 to February 2023.	Michael Stanley	PEL Study Team

114	This critique reflects the Mendenhall Wetlands Study Group's (MWSG, Study Group) review of DOWL's March 2024 second-level PEL screening of predicted impacts from six alternative corridors for construction of a second crossing between mainland Juneau and Douglas Island, as well as those of a No-Build alternative. Discrepancies and inadequacies in DOWL's identification and application of screening criteria are explained in detail, and a re-scoring of impacts associated with crossing alternatives is proposed. Examples include the need to consider more than just the narrow footprint of a constructed crossing alternative and to avoid or minimize fish and wildlife habitat fragmentation. Moreover, the PEL screening results need to reflect statutory and regulatory requirements of the National Transportation Act of 1966 and the State of Alaska's Title 16 requirements to prioritize off-refuge alternatives and further avoid, minimize, and mitigate impacts to the MendenhallWetlands State Game Refuge, across which five of the six identified channel crossing alternatives would wholly traverse. The result of the Study Group's re-scoring of the six crossing alternatives results in the following order of adverse impacts from least to worst: Twin Lakes (TL), Salmon Creek (SC), Vanderbilt (VB), East Sunny Point (ESP), West Sunny Point (WSP), and Mendenhall Peninsula (MP). The Study Group recommends that ESP, WSP and MP not be carried forward into the EIS process because they would have highly adverse impacts on the Mendenhall Wetlands State Game Refuge. The Study Group advocates for including the Salmon Creek alternative, as it is the only remaining potentially off-refuge alternative, among those forwarded for analysis in the NEPA process. The Study Group also cautions against any tendency to exclude alternatives while	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	PEL Study Team
115	Federal and State laws and regulations make finding a feasible and prudent off-refuge alternative the highest priority for ADOT&PF. Section 4(f) of the National Transportation Act requires that ADOT&PF prioritize alternatives that avoid wildlife refuges and, if there is a feasible and prudent option that avoids the Refuge, ADOT&PF must select it. Similarly, the ADF&G regulations for the Mendenhall State Game Refuge require that ADOT&PF demonstrate that there is a significant public need for the corridor that cannot be reasonably met off-refuge before choosing a corridor that crosses the Refuge. The requirements of these state and federal laws to avoid, minimize, and mitigate impacts to the Mendenhall Wetlands State Game Refuge comprise a crucial context for the public to understand, and should guide the evaluation and ranking of alternatives. Further, the draft PEL analysis ranks all 4(f) properties equally. Giving the same weight to impacting a CBJ trailhead as it does to putting a highway through one of the most productive areas of the Refuge at Mendenhall Peninsula, for example, is misleading at best and should be corrected.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study.	Mendenhall Wetlands Study Group	PEL Study Team

116	The Purpose and Need criterion of “Improving travel times” should address scenarios for access from Douglas Island to Bartlett Regional Hospital (one of the CBJ’s highest safety priorities) in the event that the current bridge is blocked or Egan Expressway is closed by avalanche or accident below Mount Juneau. The Salmon Creek alternative would give residents from Thane, Downtown Juneau, Downtown Douglas, and West Juneau more rapid access to the Hospital than any of the other options, followed by Twin Lakes and other alternatives further north and west; how much faster would be important to know when reviewing alternatives. The analysis of alternatives should also include a reference to the travel time analysis done by ADOT&PF. The scale from -2 to +2 does not give an accurate sense of the time benefits of different alternatives, but ADOT&PF’s travel time analysis does. The public should understand, for example, that a trip from the Back Loop Road to the Fish Creek Road will take 1.2 minutes longer using the Vanderbilt Crossing than using the Sunny Point crossing; the Twin Lakes crossing will take 3.4 minutes longer than Sunny Point; and, Salmon Creek will result in a trip 5.2 minutes longer than Sunny Point. It is important that the public understand how many (or how few) minutes in actual travel time they are saving when they look at the environmental and dollar costs of different alternatives.	The scoring values are based upon data in the appropriate memos .	Mendenhall Wetlands Study Group	PEL Study Team
117	We agree with ADOT&PF's decision to only evaluate elevated structures in the PEL Level 2 analysis. Given the extreme tidal action that makes the Mendenhall Wetlands so diverse and productive, the final PEL should require that only elevated structures be considered and evaluated during the EIS phase of analysis for any second crossing. While we believe this draft PEL screening underestimates even the impacts of elevated structures, the effects of solid fill structures perpendicular to the extreme tidal flows would be orders of magnitude worse as they would cause far greater impacts to tidal and freshwater flows.	Further review of hydraulic and hydrologic forces and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	PEL Study Team
118	DOWL has constructed an evaluation matrix for the PEL Level 2 screening process that ostensibly evaluates the relative impact on the crossing alternatives in relation to the Purpose and Needs, Additional Goals, and Environmental Screening. The rating matrix is deeply flawed on several levels. First, the scoring range does not adequately portray differences in environmental impacts between alternatives. The scoring gradients are -2 to 2 for some objectives, providing a range of 5, but restricted to 0 to 2 or 0 to -2 for environmental impacts. This both reduces the level of detail for portraying differences between alternatives and puts environmental values at a disadvantage in any attempt at cumulative scoring. In addition, criteria and scoring should be structured so that environmental factors are given weight in the overall rating that is appropriate to their regulatory and common sense importance, particularly bird habitat.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	PEL Study Team

119	Second, a number of key criteria are not listed or rated. DOWL states that the Technical Advisory Committee and Stakeholders Advisory Committee reviewed criteria, but the PEL team has consistently failed to incorporate suggestions to revise criteria in response to comments on evaluating impacts to refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational use (See Attachment 1). The PEL assessments often limit consideration of impacts to a portion of the hypothesized fill footprints of the alternatives; other direct or consequent impacts are ignored.	The PEL Study team has received a number of comments and incorporated them into the study as appropriate.	Mendenhall Wetlands Study Group	PEL Study Team
120	Third, some of the evaluations are simply not credible. Three examples are: 1) for important migratory bird habitat affected, DOWL rates East Sunny Point (ESP) at 0 (no impact), even though the route traverses highly productive wetlands in the heart of the state refuge, in an area used by flocks of hundreds of migratory waterfowl; 2) DOWL's wetland impact acreages are limited to only a portion of fill footprints, misrepresenting impacts by an order of magnitude or more; and 3) for maintaining scenic identity, DOWL rates all alternatives except for MP the same, even though the magnificent scenic viewscape of the Wetlands, viewed from Egan Expressway, the Dike Trail, or other trails and scenic viewpoints and which has been identified in the Juneau Comprehensive Plan is greatly impacted by the Sunny Point alternatives, with diminishing impact from the alternatives to the south and east (i.e., VB, TL, and SC).	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office. The wetland impacts are complete calculations of fill placement by alternative. The revised scoring of the visual, cultural, and scenic identity criteria is as recommended by the DOT&PF SEO.	Mendenhall Wetlands Study Group	PEL Study Team
121	The cumulative ratings DOWL has developed are based on some criteria being scored inappropriately, using either incorrect, incomplete, or inconsistent rating factors. Below we provide a list of criteria that we find incorrectly rated. We then reevaluate these criteria considering factors such as refuge integrity, ecosystem functions, fragmentation of habitat and viewsheds, and recreational uses, based on the expertise and literally hundreds of years of collective experience of the professionals comprising the MWSG.	As recommended by the DOT&PF Statewide Environmental Office, the alternatives have been re-scored to weight importance of resources within the refuge.	Mendenhall Wetlands Study Group	PEL Study Team
122	The very narrow scoring range used in the PEL Level 2 screening makes it difficult to resolve differences among the alternatives. While it would be preferable to expand the scoring range, we suggest using fractions to better distinguish the differences between alternatives in terms of impacts to environmental resources and refuge integrity. Accordingly, where needed we have used fractional values in the tables below to show a finer degree of resolution.	Recommendation noted about fractional values. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	PEL Study Team
123	DOWL has rated all alternatives as +1. This is not consistent with its own Bridge Volume Forecast Memo, which shows that the volume of traffic on the current bridge would be most reduced by the Salmon Creek and Twin Lakes alternatives, with diminishing diversion of traffic for the more westward alternatives (i.e., VB, ESP, WSP, MP).	The assumption is based from traffic data showing peak congestion surrounding the existing Juneau-Douglas Bridge.	Mendenhall Wetlands Study Group	PEL Study Team

124	Moreover, the Bridge Volume Forecast Memo and DOWL's other preliminary analysis do not consider or mention the logical termini of a Bench Road Project, North Douglas Master Plan, and North Douglas Highway Improvements. A second bridge between Juneau and Douglas Island will require these projects, and perhaps others, in order to be an effective transportation link. ADOT&PF will have to consider the rational endpoints of planning and infrastructure obligations and their costs to fully evaluate and select an alternative for a second crossing. Without development of the transportation-focused logical termini mentioned here, it is likely that any second crossing alternative (with the exception of No-Build) would increase existing and future traffic congestion in other areas north of the current Douglas Island Bridge and its intersections, along the length of North Douglas Highway.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation	Mendenhall Wetlands Study Group	PEL Study Team
125	The alternatives should be re-scored to reflect the gradient of impact: Mendenhall Peninsula (MP) -1; West Sunny Point (WSP) 0; East Sunny Point (ESP) 0; Vanderbilt (VB) +1; Twin Lakes (TL) +2; and Salmon Creek (SC) +2.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
126	DOWL has rated all alternatives -2 which seems to suggest that none of the alternatives they have presented, other than the no-build alternative, can meet the regulatory requirements of avoiding or minimizing impact. However, it is stated that Salmon Creek route is the "least impactful" of the alternatives. They also mention that this alternative is likely to be located outside the refuge, but apparently give no weighting to maintaining refuge integrity, an issue that has been repeatedly raised in public comment and by both the Technical and Stakeholder advisory committees. Finding an off-refuge alternative is the first priority under both state and federal law. Avoiding and minimizing environmental impact are regulatory requirements both on and off the Refuge, rather than being just "additional goals" that may or may not be met by the project. Designs and siting should therefore be adjusted to provide choices that do avoid and minimize refuge and environmental impact.	Comment noted. The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	Mendenhall Wetlands Study Group	PEL Study Team
127	A first step would be to retain and improve analysis of an off-refuge alignment at Salmon Creek. A second would be to adjust alignments to avoid stream mouth deltas, refuge access areas, and extensive salt marsh; none of the current alignments accomplish this. Whether for engineering convenience or land availability it appears that deltas, refuge access points, and extensive salt marsh were the focus for proposed crossing sites. In Figure 1 (following Page 25)), deltas show as rough-textured bulges at stream mouths, and low and high salt marsh can be approximated by the two elevation classes lying between 12 to 20.6 ft. above Mean Lower Low Water. From this overview, the proposed alignment locations themselves represent a failure from the start to identify and incorporate the key "environmental linkages" – the purpose of the Planning and Environmental Linkages (PEL) process.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations. In addition, please note "convenience" is not a criteria in selection of proposed sites considered by engineers in development of alternatives.	Mendenhall Wetlands Study Group	PEL Study Team
128	Deltas within proposed alignments include those of the Mendenhall River, Falls Creek, Neilson Creek, 5 Mile Creek, the creek at the 9 Mile access trail and to a lesser extent, Salmon Creek. Estuarine deltas have rockweed/mussel beds and rich mudflats that are key wildlife concentration areas; the Mendenhall and Salmon/Falls Creek deltas have been documented as the most important year-round bird habitat on the refuge, and Neilson Creek is among the top seasonal sites (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

129	Proposed crossing alignments would affect official refuge access at Sunny Point East and West, Falls Creek, 5 Mile Creek, 9 Mile North Douglas Highway, and perhaps to a lesser extent Salmon Creek. Other refuge access via public land is affected by the alignments at Hendrickson Point and Mendenhall Peninsula. Extensive salt marsh areas, from the access trails across most of the widest part of the refuge, are traversed by both Sunny Point alignments; there is also considerable and growing salt marsh at Vanderbilt. Even using the simplest and most obvious criteria, the PEL's choice of crossing sites indicates no credible attempt to avoid or minimize refuge and environmental impacts as required by statute and regulation, except perhaps at Salmon Creek	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time from being located in or outside of the Refuge. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team
130	The PEL ratings give no consideration of the impact of habitat fragmentation, a major concern in terms of environmental impact. At a minimum, SC should be changed to a -1. The very narrow scoring range makes it difficult to resolve differences among alternatives. Using fractions to display the difference in environmental impact and impact to refuge integrity we scored MP -2; WSP -2; ESP -2; VB -2; TL -1.5, and SC -1.	The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	PEL Study Team
131	DOWL has rated MP -2 and all other alternatives -1. The lower rating of MP makes sense in relation to the impact on the scenic viewshed identified in the City and Borough of Juneau's Comprehensive Plan. However, the iconic viewshed of the Wetlands from the airport to the southeast is also identified in the Comprehensive Plan, and the alternatives east of the airport have greatly varying degrees of impact on this viewshed, with increasing impact from east to west. Again, the limited scoring range constrains a comparison of differences among the alternatives. At a minimum, WSP and ESP should be rated as -2. We again suggest you either expand the scoring range to 0 to -3, or use fractions to show the difference in environmental impact among alternatives by scoring MP -2; WSP -2; ESP -2; VB -1.5; TL -1.5; and SC -1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	PEL Study Team
132	DOWL has apparently limited its wetland evaluation to a fraction of the fill footprint of the proposed alternative structures. Fill may be an appropriate factor to evaluate for "impervious surfaces added", but is an incomplete description of the structures' impact to wetlands within and surrounding the routes, in terms of potential impacts to hydrology, soil disturbance and erosion, long-term destruction of vegetation, shading and fragmentation of habitat, and ecosystem functions.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	PEL Study Team
133	Using the final fill footprint also fails to consider the impacts from construction activities, which will cause decades-long impacts to a greater area of wetlands than the narrow fill corridor. When these factors are considered, there is no justification for rating ESP as less impactful than WSP. Both of these alternatives also share the Hendrickson Point freshwater wetland traverse; it appears that wetlands within the Hendrickson Point corridor – and perhaps the entire Douglas Island side of all alignments – were excluded from DOWL's acreage tally. DOWL's recently released wetland delineation of the Hendrickson Point area fails to map a large portion (10+ acres) of the wetland area and stream within the alignment corridor, and even the mapped portion was apparently omitted from the wetland acreage totals. Both Sunny Point alternatives should be rated -2. Similarly, DOWL failed to map several acres of wetlands mapped by CBJ (2015) within the route alignment on the Mendenhall Peninsula.	The closest reference is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	Mendenhall Wetlands Study Group	PEL Study Team

134	Wetlands and waters, in terms of US Army Corps of Engineers (USACE) jurisdiction, include both freshwater and vegetated intertidal wetlands as well as mudflats. DOWL's impact acreages apparently do not include the full range of jurisdictional wetlands and waters, even if limiting consideration to only the fill footprint and only on the mainland. The ratings matrix and accompanying documentation must therefore include the definitions of wetlands on which they are based, and if limited to certain wetland types or parts of the project area, a rationale for this, along with maps illustrating the calculated acreages.	Impact acreages include both wetlands and water bodies, not limited to the footprint on the mainland. Impact acreages were derived from delineated wetlands on the mainland as well as fresh waterbodies. Waters include any area below the ordinary high water. The high tide line was determine mudflats and vegetated intertidal wetlands apart of the Cowardin classification system.	Mendenhall Wetlands Study Group	PEL Study Team
135	The "impact quantification" wetland acreages listed by DOWL are not credible and require revision and documentation. Our estimates of jurisdictional wetland and water acreages for a minimal alignment width (150 ft) and just the presumed fill portion are an order of magnitude greater than DOWL's. The footprint, types of wetland/water areas included, and data sources (NWI layers, desktop or ground delineation) should be clarified and revised as necessary	The list of data sources are listed in Section 2 and the types of wetlands or waterbodies included are included in Table 3 of the Wetland Delineation Report.	Mendenhall Wetlands Study Group	PEL Study Team
136	Functional assessment was not included in DOWL's "Wetland Delineation and Functional Assessment" report, despite its title, and impacts to wetland functions were not considered in the impact analysis and rating. This is an example of DOWL failing to consider broad-scale impacts that would be regulated by the Clean Water Act (Secs. 10 and 404), the Magnuson-Stevens Act, AS 16 (.20.020, .05.841 & .05.870) governing state special areas and anadromous fish waters, as well as other requirements.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	Mendenhall Wetlands Study Group	PEL Study Team
137	Additionally, it is very difficult to describe the impacts to wetlands with only the criteria included here. Due to the value of salt marsh and delta habitats it would be prudent for future screening efforts to include criteria for salt marsh and delta types. Good reference points may be the SEALT Habitat Mapping and Assessment Project and the ADOT&PF/Parametrix intertidal habitat survey report.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	Mendenhall Wetlands Study Group	PEL Study Team
138	DOWL again has apparently limited its evaluation to the fill footprint, or part of that intertidal footprint, for each of the proposed crossings. As stated above, fill is an appropriate evaluation consideration for the 'impervious surfaces added" criterion in the matrix but is an incomplete evaluation of the structures' impact to intertidal zones transited by the routes in terms of potential impacts to hydrology, shading and fragmentation of habitat, ecosystem functions, and long-term effects of construction impacts. When these factors are considered, along with intertidal alignment lengths, MP, ESP, and WSP should be rated -2. The deeper channel at Salmon Creek, and proposed span rather than pilings, may make a rating of -1 potentially reasonable there, although it appears that intertidal impacts on the Douglas Island side of the current alignment are significant.	The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	Mendenhall Wetlands Study Group	PEL Study Team

139	According to communications from the PEL team the wetland acreages were being tallied for all “wetlands and waters” jurisdictional areas, which would be from high tide line to below Mean Low Low Water (MLLW). Since most of the intertidal is technically jurisdictional wetland and waters, DOWL’s acreages calculated for wetlands should be similar to, or larger (with addition of freshwater wetlands) than, these intertidal acreages, but they are not. DOWL must therefore provide their maps of intertidal fill, other structures, and construction impact acreages and verify that Douglas Island-side and mid-channel support structure impacts are included in their calculations. If only fill footprints are included, or only for the Egan interchanges, this is not a reasonable representation of total or relative intertidal (or wetland) impacts for the crossing alternatives and must be corrected	A breakdown of intertidal and freshwater impacts are located within the Wetland Delineation report. The footprint for the Egan Drive interchanges were included due to a goal to improve safety, including conflict points. Specific quantities for fill material and support structures are not yet defined in this phase of the PEL process and will be more defined in the design phase.	Mendenhall Wetlands Study Group	PEL Study Team
140	As noted by a NOAA Fisheries Habitat expert at the Joint Advisory Committee meeting on March 7, this is not a good metric for comparing the alternatives. Essential Fish Habitat (EFH) is too coarse a definition to evaluate differences; all alternatives are routed through areas mapped as EFH. The only credible mechanism for using EFH in scoring would be for NOAA to undertake a consultation with ADOT&PF and make a specific determination of impacts to EFH for each alternative. That is unlikely to occur prior to an EIS. An EFH consultation would assess impacts to waters, substrate, species, habitat types, ecosystem services, and finally the quality and quantity of EFH that would be affected. Relative ranking of alternatives should be based on habitat impacted, and until a consultation occurs, the blanket of EFH across all six build alternatives does not adequately describe or differentiate between habitat impacts. We renamed this criterion “Fish Habitat Affected”. We accepted the DOWL scores for most alternatives, based on fill footprints, but have changed the WSP and ESP scores from 0 to -2. There is also an effect of fill on fish habitat from these alternatives at their Douglas Island landings, and for WSP on the mainland junction, but more importantly, these routes bisect the salt marsh and numerous tidal sloughs and channels in the heart of the refuge, potentially affecting flow patterns and interconnectivity. This area, including the salt marsh, is important habitat for a variety of fish species, and especially for rearing juvenile coho salmon that originate in neighboring anadromous streams. Project maps and analyses should be updated to show anadromous streams, including Falls and Neilson Creeks and recently documented streams by the MP landfall on Douglas Island.	EFH impacts were removed following the recommendation from NOAA Fisheries.	Mendenhall Wetlands Study Group	PEL Study Team
141	This criterion is undefined and therefore challenging to comment on. However, under the assumption that this category is meant to exclude birds and fish due to their being treated elsewhere, we will comment based on the value of the Mendenhall Wetlands to large game, small game, and furbearers.	Different habitat classifications for species will be developed further into the NEPA analysis.	Mendenhall Wetlands Study Group	PEL Study Team

142	Both WSP and ESP have a far greater impact than reflected in DOWL's scoring. These alternatives fragment the most undisturbed portion of the refuge, which is important small game and furbearer habitat, serve as a movement corridor between Douglas Island and the mainland, especially for deer and black bear, and are important for foraging and critical for deer overwintering. From their landing point on Douglas Island to the North Douglas Highway these alternatives also fragment terrestrial habitat. ESP and WSP should be changed to -2 for impact for this criterion. MP should be changed to -2 to reflect the impacts of the large footprint of cleared forest and filled wetland habitat in a currently undisturbed area and movement corridor, in addition to loss of undisturbed shoreline habitat and creation of movement barriers along both currently undeveloped mainland and Douglas Island shorelines.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	Mendenhall Wetlands Study Group	PEL Study Team
143	Rating East Sunny Point (ESP) as 0 – "no impact", is perhaps the least credible ranking in this matrix. It is also concerning that migratory bird habitat impact contributes only a small fraction of the overall rating, when bird habitat is the primary feature and purpose of this legislatively designated wetland refuge. Human and other wildlife uses of refuge resources are also important, but these flow from habitat; to meet regulatory requirements and reflect the community's valued use and enjoyment of the refuge, habitat impacts must be weighted to contribute a large portion of the score. It is therefore essential to set up clear and useful bird habitat impact rating criteria and apply them correctly. DOWL's criteria, while potentially useful for some of the impact area, are unclear and incorrectly applied, seriously misrepresenting both refuge resources and project effects.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office. The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	Mendenhall Wetlands Study Group	PEL Study Team
144	DOWL states that "# nests" is the criterion for "impact quantification" but for the rating uses "acres within 500-foot buffer of bird hotspot". Neither are useful measures. There are certainly nests along the upland edge at all of the alignments, but nests are not an indicator of migratory stopover or wintering use or in tidal habitats– the key uses and habitats of the refuge.	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	PEL Study Team
145	The source of the rating matrix "hotspots" is not clear; are these eBird Hotspots or the points shown in 2004 Hotspots survey funded by USFWS? We were told that eBird was used for preliminary data, but that the Armstrong et al. 2004 Hotspots report was used for the rating. In either case, this would be a highly inappropriate use of the data, because surveyed and birded areas are much larger than the impact rating's 500-foot buffers.	"Hotspot" was a term adopted from Armstrong et al. 2004 as well as eBird. Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	PEL Study Team
146	eBird hotspots are Cornell Lab of Ornithology online repositories for checklists at commonly visited public use areas; they do not necessarily indicate particularly large numbers or varied species of birds. The Armstrong et al. report's "hotspot" points indicate the general location of bird activity and are tied to analyses of the magnitude, consistency, and seasonal patterns of bird use at low tide. The points, however, are only placeholders for much larger observation areas. The polygons supplied by Hotspots author and GIS analyst Richard Carstensen in Figure 1 provide an estimated outline of these larger areas and could be used, along with other data sources, to replace the invalid 500-foot nest buffers. Additional sources such as available habitat and eBird records must be consulted for the areas that did not have the full complement of surveys, as well as for higher tide use areas and for more recent information.	All appropiate and relevent data will be used to determine impacts to migratorty birds. The points referred to in the comment are in fact place holders before obtaining additional data apart of the NEPA process.	Mendenhall Wetlands Study Group	PEL Study Team

147	We note that the Parametrix report on Bird and Habitat Surveys emphasized that habitat evaluation is the best way to rate relative impacts of development. Where systematic and spatially detailed bird survey data may be unavailable across the full tidal range and across seasons, this is a particularly useful approach. We have based our revised ratings on habitat, including channel and shoreline complexity, along with typical and maximum flock observations from a variety of sources, including the Armstrong et al. Hotspots report, eBird, and other observations	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
148	In addition to habitat loss from fill and related vegetation and hydrologic changes, a rating of impacts should consider other effects of transport corridors: from shading and disturbance to the introduction of predator perches, and invasive species, risks from collision and lighting, and barriers to flock movement.	A more detailed evaluation of impacts to bird habitat will be undertaken during a NEPA analysis.	Mendenhall Wetlands Study Group	PEL Study Team
149	SEALT's habitat mapping and functional assessment, and the well-documented habitat use of these and similar areas, show that ESP contains excellent migratory bird habitat (SEALT, 2024 (draft)). This is another case where habitat fragmentation, degradation and loss within and beyond the alignment footprint, especially in relation to migratory birds, would have a more severe impact. Currently WSP, which transits similar habitats and shares most of the same route, is rated -2. Accordingly, ESP should also have a rating of -2.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
150	Both Sunny Point alignments have extensive salt marsh and meadow areas that are key foraging and resting habitat for large flocks of winter resident Vancouver Canada Geese and Mallards. The Sunny Point area is uniquely productive and varied, with large expanses of sedge and succulent low marsh; wet and brackish high marsh; a complex network of channels, ponds, and sloughs; and undisturbed shorelines and islands. While the West Sunny Point alignment would destroy more of the high and brackish marsh habitat to create a new interchange, both alignments cross a large central expanse of salt marsh and channels that is a major nexus of waterfowl movement as tides change.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
151	The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon, Pintail, Green-winged Teal, Red-winged and Rusty Blackbirds, and Trumpeter Swans (Amstrong et al., 2004, eBird checklists by Hausler, MacDonald, and others). This extensive area is well-documented as important to the region's winter resident Vancouver Canada Goose and Mallard populations and provides migratory stopover habitat for a variety of species.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
152	The southern portion of the alignment near the tidal divide includes tidal channels and flats as well as salt marsh and vegetated spoil islands. Beyond the center of the Sunny Point alignment and at its Hendrickson Point landfall, survey and eBird data are sparse, although nearby similar high marsh areas provide foraging and resting areas for waterfowl and spoil islands provide resting and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadow are used by migrating raptors such as Short-eared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, Common Redpoll, and American Pipit stop to refuel in the extensive tidelands at the heart of the refuge.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

153	The southern part of the Sunny Point alignment would compromise high marsh, channel, and spoil island habitat. At the landfall on Hendrickson Point, the crossing passes through a narrow band of upland forest to where it presumably would fill a long stretch (~2000 ft) of scrub-shrub and forested wetlands. The semi-forested wetlands contain two small streams that bisect an extensive open peatland, including a CBJ Conservation Area and a land trust conservation holding. Wetland mosaics like these provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have also been observed defending the area along the Hendrickson Point alignment, a disturbance-sensitive uncommon breeder in large, pond-rich peatlands in the Juneau area.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
154	Considered together, impacts to high quality bird habitat from both Sunny Point alternatives are extreme. Crossing the widest, least disturbed, and most central part of the refuge and adjacent undeveloped uplands, the Sunny Point alternatives would seriously compromise the overall function and integrity of the Refuge. These alternatives should therefore be removed from further consideration, since less damaging alternatives are available, including an off-refuge site.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team
155	The score of "0" for the Mendenhall Peninsula (MP) alternative for bird habitat impact is also a serious oversight. The MP route crosses 3 of the 4 most important habitat areas on the refuge ("first tier hotspots") in the most recent systematic survey of bird use of the Mendenhall wetlands, Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003 (Amstrong et al., 2004). While high bridge spans may reduce some crossing impacts, habitat would be disturbed, degraded, and lost, particularly at shorelines and abutments. Spans and other elevated structures can impede flock movements, particularly for low-flying sea ducks.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	PEL Study Team
156	The Mendenhall Peninsula crossing alternative runs through the top bird "hotspot" at the Mendenhall rivermouth tideflats and continues through the adjacent hotspots of the Western Mudflats and Fritz Cove. (Birds from the Fritz Cove observation area moved up the flooding river mouth and channel area with the rising tide, so the boundary between these is tide-dependent.) Designated as "first tier" for their consistently heavy bird use, these 3 hotspots represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These areas stand out among 42 survey sites across the more accessible portions of the Mendenhall Wetlands State Game Refuge. The bird totals, defined as a sum of seasonal means from repeated surveys, were over 1000 for each of these "first tier hotspots," representing consistently high numbers and year-round habitat use (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

157	Total bird numbers at the rivermouth and Fritz Cove are dominated by large spring flocks of migrating or staging waterfowl, although the rivermouth is also an important shorebird stopover and a winter hotspot with use by large flocks of dabblers, sea ducks, and geese. The Hotspots authors regard the mouth of Mendenhall River as the refuge's "top hotspot" and "probably among the most important feeding habitat for ducks and shorebirds" on the Mendenhall wetlands, citing the mix of fresh, glacial, and marine waters, and observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The area is known as the best place to find less common and high-conservation-concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird's Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits (Table 1). The "Hotspots" authors also counted large flocks of waterfowl at the rivermouth, including 800 Northern Shovelers, 350 Mallards, and 300 American Wigeon feeding in the sloughs and amongst the fucus/mussel beds (Armstrong et al., 2004). To the south, the MP alignment transits two "second tier hotspots," the channels, rockweed beds, and tideflats extending from the Fish Creek estuary and the Western Channel. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually "top tier"), including heavy migration and winter use on par with the Western Mudflats. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09, Western Channel) host large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7). As it approaches the landfall at the 9 mile refuge access trail, the MP alignment also passes near the center of "seasonal hotspot" f06, the bay east of the boat launch; this secluded cove is known for grebes and loons, flocks of up 500 or more American Wigeon, and huge off-shore rafts of scoters (Figure 1). MP should be rated -2.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
158	The current Salmon Creek crossing alternative is along the southern edge of the Salmon Creek delta. The estuary, an official ADF&G refuge access point and popular option for near-town duck hunting and birding, is one of the 4 "top tier" refuge hotspots (Armstrong et al., 2004), an important resting and feeding area for gulls, ducks, and shorebirds. Up to 200 Dunlin have been observed in winter and spring. It is a top seasonal hotspot fall through spring for dabbling ducks, with approximately 300 Mallards often observed feeding there. In summer and fall, gulls are abundant, including an August observation of 1000 Short-billed, 700 Glaucous-winged, 500 Bonaparte's, and 100 Herring Gulls. Salmon bring in over a dozen Bald Eagles at once. Up to 600 Surf and White-winged Scoters have been observed staging in Gastineau Channel and feeding on the extensive delta-edge mussel beds (Armstong, 2004 p 22).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
159	On the Douglas Island side, the alignment reaches the shore where Falls Creek has formed a smaller delta similar in character to that of Salmon Creek, with a salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow's Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

160	Bird use at Salmon Creek is extremely high, but habitat impacts here may be limited by the high span expected at this deepwater location. Impacts have been somewhat reduced by locating the mainland approach at the southern delta edge, but effects on birds, habitat, and human use will remain, including impacts to two refuge access trails. Moving the bridge landing off the Falls Creek delta could further reduce impacts. We rate this -1 for bird habitat impacts.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
161	Twin Lakes site was visited periodically in the Hotspots study. As at Sunny Point, some portions did not receive the full complement of surveys. Armstrong et al. (2004) describe the Twin Lakes area as an important feeding and “refuge” area for Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats; three are currently using Twin Lakes and Vanderbilt marsh. The Vanderbilt (“Pioneer”) marsh area is regularly used by Great Blue Herons and Red-winged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes, and sometimes Ring-necked Ducks, Canvasbacks, and Ruddy Ducks (Armstrong, 2004). For its richness of unusual species and by flocks for resting and foraging, this parkside area is considered a “nearby hotspot” in the Hotspots report, important as a “refuge from the refuge” and for wildlife viewing (Armstrong et al., 2004).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
162	The Douglas Island landfall for the Twin Lakes crossing is at the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for a heliport, but the remaining low marsh, stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat similar to Lemon Creek, though somewhat smaller and with less hatchery enrichment. The Neilson delta area ranks as a “second tier hotspot” and a top seasonal hotspot in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters, 200 Mallards, and 500 Short-billed Gulls. Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler (Armstrong et al., 2004). The Neilson Creek delta could be considered virtually continuous with a smaller delta formation to the north; the two are separated at low tide by only a narrow channel so could be considered a functional habitat unit.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
163	Potential impacts here stem from extensive intertidal fill for an interchange at the Egan Expressway and for the Douglas Island landfall on the western side of the Neilson Creek delta and tideflats. Additional bird habitat impact would occur from development of one of the few shoreline natural areas on the southern half of the refuge. We suggest a bird habitat impact rating of -1.5.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
164	The Twin and Vanderbilt impact areas overlap at Vanderbilt (or “Pioneer”) marsh, noted above for use by dabbling ducks and Red-winged Blackbirds, and at the western part of Twin Lakes. Both are considered “nearby hotspots” (Armstrong, 2004), where aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

165	The Vanderbilt crossing fill footprint includes a long band of salt marsh habitat on both sides of Egan Expressway, part of the freshwater wetland habitat of Vanderbilt (“Pioneer”) marsh, and the new and old channels and distributaries of Vanderbilt Creek. Leaving shore, the alignment crosses rich and dynamic tidelands where Lemon Creek’s glacial waters meet several clear streams and mix with saltwater. The route crosses a distributary channel of Lemon Creek and a large tidal “island.” Isolated, yet in clear view of the highway, this planarian-shaped salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds (SEALT draft, 2024). 1000 Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, but on the mainland side, access is complicated by Egan Expressway and particularly difficult for the tidal “island.”	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
166	The 5-Mile Creek site (e01) opposite Vanderbilt Creek is another that did not receive the full series of Hotspot surveys, but waterfowl, including up to 200 Mallard and smaller numbers of other dabblers, were consistently observed on the mudflats and marsh of the 5 Mile Creek delta and nearby tideflats (Armstrong et al., 2004). The area sees little birding activity, so eBird observations are limited, although there is a forested CBJ beach access trail at the alignment landfall on the 5-mile Creek delta. Nearby homeowners and others have reported, however, that the 5 mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron and flocks of wintering Killdeer have also been observed using this little-disturbed area, and there is sign of extensive use of mudflats by wintering shorebirds (SEALT, 2024 (draft)). Sandhill Cranes have also been reported from this out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
167	We have rated bird habitat effects for the Vanderbilt alignment at -2, given the lengthy marsh footprint on both sides of Egan Expressway, the presence of rich and growing mid-channel low marsh and mudflats, and that area’s role as a haven within the refuge. Impacts at this crossing could be reduced somewhat by avoiding Pioneer marsh, elevating interchange lanes, and moving the alignment off the 5-Mile Creek delta, but the special habitat values of the isolated intertidal island would be lost.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
168	In summary, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitats on the refuge were omitted from the most important piece (the piece that relates to the purpose of the state refuge) of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. Our scoring reflects consideration of the best available information.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	PEL Study Team

169	DOWL has scored all alternatives at -1, with the exception of MP, which is -2. These ratings are based on the number of 4(f)/6(f) resources affected. Making an equivalency of impact to the Refuge and minor 4(f)/(6f) resources at MP they ignore the repeated concerns expressed in the public process on maintaining the MWSGR's integrity; the direct impacts on Refuge lands are very different among the alternatives. As such, some credit for this should be given to the SC alternative for having lower impact on Refuge integrity, and the other alternatives should have more strongly negative ratings to reflect this impact. It is possible that, with careful planning and mitigation efforts, the SC alternative would only have a minimal impact under the ADF&G regulations preferring an off-Refuge alternative	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	Mendenhall Wetlands Study Group	PEL Study Team
170	Furthermore, DOWL's score for MP reflects consideration of CBJ 4(f)/6(f) resources, but does not consider even larger and more significant CBJ 4(f)/6(f) resources at Hendrickson Point and Fish Creek on Douglas Island to merit the same additive scoring for WSP and ESP. The managed trails, social trails, and general public access points at both termini of the WSP and ESP alternatives are used just as heavily by hunters, hikers, and other Refuge users as the public access points at the tip of MP. We propose the following ratings, east to west: MP -2; WSP -2; ESP -2; VB -2; TL -2; and SC –1.	Hendrickson point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	PEL Study Team
171	DOWL has apparently evaluated this criterion only in relation to lands conserved by the Southeast Alaska Land Trust (SEALT). Even under this definition, DOWL neglects to include three SEALT conservation properties: the SEALT fishing/beach access property at Falls Creek, and two SEALT mitigation sites on Hendrickson Point. DOWL also neglects to include the Johnson Creek State Recreation Site, or CBJ's Fish Creek Park, in scores for either the 4(f)/6(f) category or the protected lands category, but the uses for both of those areas would be severely impacted in the case of construction nearby.	The Project Team eliminated properties from the analysis if it did not fall within the project footprint or specific to the scoring criteria of within a certain proximately.	Mendenhall Wetlands Study Group	PEL Study Team
172	In addition, the majority of Hendrickson Point is designated as a Conservation Area and managed by the Parks & Recreation Department for public access and uses under the City and Borough of Juneau's Comprehensive Plan. DOWL's scoring does not consider CBJ conservation areas or public access corridors as "protected lands", but this narrow view ignores decades of community planning efforts that have in fact set aside those lands for recreation and habitat. If DOWL does not consider the parks, managed trails, access points, legally protected lands, and conservation areas to be 4(f)/6(f) resources, then at minimum they must be considered protected lands.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	Mendenhall Wetlands Study Group	PEL Study Team
173	In actuality, the entirety of the Mendenhall Wetlands State Game Refuge and its adjoining public use areas are in a protected lands category, something that has never been acknowledged by the PEL process.	The Refuge and its adjoining properties such as designated access points are acknowledged in the scoring process.	Mendenhall Wetlands Study Group	PEL Study Team
174	When the Mendenhall Wetlands State Game Refuge, CBJ natural areas, state recreation areas, and other protected lands are (appropriately) considered, the alternatives should be scored MP -2; WSP -2; ESP -2; VB -1.5; TL -1; and SC-0.5.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
175	This category has three criteria embedded within it to capture social impacts. This would seem to be where recreational use and potential impacts to future airport operations and expansion should be incorporated.The ESP and WSP have the greatest potential to conflict with future runway and airport lighting options. The airport is the only dependable access to Juneau. Alternatives that have the most potential to limit future operations of the airport should be rated lower.	The study team has had many conversations with the Juneau Airport and has committed alternatives impacting aircraft approaches would be modified to avoid impacts or not progress.	Mendenhall Wetlands Study Group	PEL Study Team

176	DOWL has received numerous comments on potential impacts to hunting, fishing, hiking, and birding. Yet these impacts do not seem to be considered in the rating matrix except in reference to VB, where recreational use (water access) was considered to rate VB to -1. Impacts to recreational use would be most severe at the WSP and ESP alternatives, especially in relation to waterfowl hunting.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	PEL Study Team
177	ADF&G reports that 243 hunters expended 2088 hunter days on the MWSGR in 2023, taking 3428 ducks, 126 geese, and 124 snipe. Twenty-nine percent of registered MWSGR hunters reported using Sunny Point/Switzer Creek as an access point with a further nine per cent using the Eagan Expressway turnout. Construction of either the ESP or WSP alignments, and to a lesser degree the VB route, will seriously affect hunter access and success. It is also likely that either of the Sunny Point crossings and their safety buffers would divide the MWSGR into units so small that hunt management would become impossible, eliminating the most important waterfowl hunting area in Southeast Alaska. These impacts are more severe than at VB, so WSP and ESP should each be scored -2.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	Mendenhall Wetlands Study Group	PEL Study Team
178	The presence of a road across the refuge would affect multiple social activities in addition to affecting neighborhoods. Access points and associated recreational activities such as walking/exercising and birding in addition to hunting would suffer impacts from a new road so we have added these into our scoring. The effects of a crossing at WSP or ESP would be particularly strong, with VB, TL, and SC having somewhat less influence.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
179	DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. In comparing cost estimates for full structure crossings by the 2005 HDR crossing study, we found that when adjusted for a 2% inflation rate, most of the DOWL cost estimates are consistent with the HDR estimates with the notable exception of Salmon Creek. DOWL estimates SC will cost twice as much as the HDR estimate. There is no explanation of the difference since the HDR estimate included a structure to allow for navigation of the channel. We recommend accepting the HDR estimate and scoring SC a +2. Accepting the DOWL estimate would put SC at +1.	The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	Mendenhall Wetlands Study Group	PEL Study Team
180	MP, at an estimated cost of $1.7 billion, should get the lowest (-2) score, recognizing that this cost alone may make this alternative unfeasible. With the other alternatives, we gave similar scores to alternatives that were within $30 million differential in the estimates.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team
181	Because maintenance cost estimates were apparently not available when DOWL constructed the scoring matrix, they rated all alternatives 0. DOWL has now provided estimated maintenance costs, and we have scored them to consider them in the ranking process. DOWL proposes using a scoring of 0 to -2 for costs. Given the wide range of costs, it is more appropriate to use the -2 to +2 range, as was done for some of the additional goals and for the Safety criteria. MP, at an estimated annual maintenance cost of $365K, should get the lowest (-2) score. With the other alternatives, we gave similar scores to alternatives that were within $15K differential in the estimates.	Comment noted	Mendenhall Wetlands Study Group	PEL Study Team

182	The Table below summarizes how the revaluation of the scoring using more comprehensive and biologically appropriate rating factors affects the cumulative scores for each crossing alternative. Scoring MP WSP ESP VB TL SC DOWL -11 -8 -3 -10 -6 -14 MWSG -23 –20 -17 -11 -6 -10.5	Comment noted	Mendenhall Wetlands Study Group	PEL Study Team
183	MWSG's cumulative re-scoring of the crossing alternatives results in the following ranking in terms of minimizing impacts to the environment and refuge integrity: Lowest Impacts Twin Lakes -6 Salmon Creek -10.5 Vanderbilt -11 East Sunny Point -17 West Sunny Point -20 Highest Impacts Mendenhall Peninsula -23	Comment noted	Mendenhall Wetlands Study Group	PEL Study Team
184	A PEL Study is not designed to evaluate the merits of a No-Build alternative. In Level 2, DOWL inexplicably scored a No-Build alongside the construction alternatives, giving it a maximum score of 0 for the criteria outside of Purpose and Need. The No-Build alternative, which will be carried forward in the NEPA process in any case, is not considered here but would obviously not cause environmental impacts.	The No Build alternative does not show a neutral impact on the purpose and need because traffic conditions are deteriorating and No Build would allow for conditions to continue to deteriorate. Additionally, the No Build would require continued reliance on one structure over time - which is determined to be risky and negative. Therefore, the No Build would not be neutral, but a negative impact for the purpose and need criteria. Alternatively, the No Build scores neutral on "additional considerations" because there is no deterioration of condition expected on those resources, therefore the No Build would not create a negative impact on those resources.	Mendenhall Wetlands Study Group	PEL Study Team
185	Re-scoring the criteria identified above using factors that were overlooked or ignored in the DOWL assessment made a profound difference in the relative ranking of the six route alternatives in terms of their environmental impact. In contrast to the DOWL assessment, which identified East Sunny Point, Twin Lakes, and West Sunny Point, in that order, as the top three ranked alternatives and Salmon Creek as the lowest, the MWSG re-assessment identified Twin Lakes, Salmon Creek, and Vanderbilt, in that order, as the top three alternatives, with East Sunny Point, West Sunny Point, and Mendenhall Peninsula as the lowest ranked alternatives	Comment noted. The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	Mendenhall Wetlands Study Group	PEL Study Team
186	The MWSG has provided comments to DOWL on serious flaws with the scoring methodology, in terms of a skewed, poorly weighted, and inconsistent scoring rubric and incomplete and invalid environmental screening criteria. Some of these problems could be addressed by corrections to methods and additions to data sets such as we have suggested. Even with these outstanding issues, however, the application in the evaluation matrix of appropriate biological and ecological factors, consideration of recreational use, credible assessments of viewshed and traffic impacts, and scoring of cost estimates results in a more realistic and defensible ranking of the alternatives.	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team

187	The re-scoring by MWSG strongly supports moving the top two or three alternatives identified by the MWSG (TL, SC, and VB) forward for evaluation by NEPA along with the mandatory No-Build alternative. If DOWL adds additional criteria in line with the recommendations of MWSG and other technical reviewers it is likely that Salmon Creek would emerge as the alternative with the best score.	None of the six alternatives evaluated in Level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team
188	If the scoring remains more or less as DOWL presented it on March 7, MWSG recommends that no alternatives be eliminated prior to NEPA. It is totally inappropriate to defer to the NEPA process the consideration of broader scale impacts while employing the PEL process to eliminate alternatives that minimize those impacts to the Mendenhall Wetlands and the Mendenhall Wetlands State Game Refuge. Regardless of how the alternatives are ranked in the scoring matrix, the Salmon Creek alternative must go forward to NEPA as a potentially valid route lying mostly outside the refuge. In addition, NEPA should not be limited solely to the alternatives forwarded by the PEL study, as other routes that do a better job of avoiding valuable resource areas may be feasible.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team
189	The ADF&G Refuge regulations require that an off-refuge alternative be selected unless: “1) there is a significant public need for the corridor which cannot reasonably be met off-refuge; 2) that the use of Refuge lands are avoided or minimized to the maximum extent feasible including use of subsurface or elevated no-fill corridor options where feasible; 3) that public access to the Refuge is maintained; and 4) that all unavoidable impacts to the Refuge and to Refuge resources are fully mitigated through restoration, replacement and/or other compensation.” The PEL Level 2 analysis is not adequate to make this determination and so at least the Salmon Creek alternative, as a possible off-refuge or de minimis option, should be carried forward into the EIS analysis	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	Mendenhall Wetlands Study Group	PEL Study Team

190	The National Transportation Act of 1966 provides instruction under Section 4(f): "The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use." If an off-refuge alternative is eventually determined to be not prudent, then the alternatives that cross the state refuge and other 4(f)/6(f) resources must be ranked and prioritized according to the most minimally harmful impacts to the affected 4(f)/6(f) resources. This would include engineering requirements that are minimally harmful to the protected 4(f) resources, such as requiring bridge spans and elevated structures supported by pilings rather than embankment fill and adjusting alignments to minimize fill and disturbance to deltas, salt marsh, refuge access, and productive tideflats. [see Figure 1, Map Key, Mendenhall Penisula, West & East Sunny Point, Vanderbilt, Twin Lakes, Salmon Creek figure]	Comment noted.	Mendenhall Wetlands Study Group	PEL Study Team
191	The Draft Level 2 Scoring Table 2-29-24 does not present an objective comparison of the components. The table summarizes three different scoring systems; one with five scoring categories (from -2 to 2), and two with three scoring categories (from 0 to -2, and from 0 to 2), resulting in criteria weighted differently. We recommend scoring criteria in the same way or providing more than one table showing the scoring systems and results. Combining the ranking methods is confusing and potentially biased towards individual criteria, such as transportation and development over environmental and public use criteria. We also recommend including footnote references to supporting information, including definitions.	Recommendation noted. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies.	ADF&G	PEL Study Team
192	The score assigned to each criterion is not clearly explained how each metric was evaluated; a relative scale is not demonstrated to be consistently applied across criteria, and thresholds are not provided. For example, there is no information on how the 'Wetlands Directly Affected' were assigned scores between0 and -2. We recommend using an objective method to assign scores, such as characterizing the quality of habitats and associated acreage impacted by its type, location, and fish and wildlife use relative to the project area and to each crossing, and further defined by adjacence to the existing roadway and proposed bridge abutment with overhead area.	Recommendation noted.	ADF&G	PEL Study Team
193	We recommend impacts to environmental functions be weighted by the importance to the Mendenhall Wetland State Game Refuge (refuge) and the management objectives.	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	ADF&G	PEL Study Team

194	For 'Impervious Surfaces Added', please reevaluate and provide rationale for the scores assigned to Sunny Point West, Vanderbilt, and Twin Lakes (-2 score) versus Sunny Point East (-1 score).	Acreage of added impervious surface includes piles and bridge decks.	ADF&G	PEL Study Team
195	Ecological functions vary within the types of intertidal habitat, and applying only the acreage of the habitat into the scoring table oversimplifies the consequences of potential habitat impacts. For example, there is a difference in the quality of intertidal habitat at the mouth of the Mendenhall River relative to Lemon Creek near the proposed Vanderbilt crossing. We recommend reevaluating all scores for'Intertidal Zone Directly Affected' and suggest scoring most if not all build alternatives as -2. Subtidal habitat was mapped and provided in the supplemental information, though subtidal and nearshore habitat criteria are not included.	Comment noted.	ADF&G	PEL Study Team
196	Wetland data displayed in Figure 2 from the Baseline Data report displays more wetlands than the online mapper and as shown in our March 7, 2024, meeting. Please include references for the data used for wetlands scoring, and the rationale for each score.	If referring to the figure in the "Wetland Delineation" presentation slide (pg. 9), the wetland layer displayed is from the National Wetland Inventory and is typically not entirely accurate. The data used in the scoring is from the wetland delineation fieldwork.	ADF&G	PEL Study Team
197	Please clearly define the buffer extent considered for 'Stream and Riparian Habitats' scoring and provide rationale for the scores.	This score includes linear feet of impact to streams and a 50-foot riparian buffer.	ADF&G	PEL Study Team
198	Please provide a definition for wildlife habitat and the buffer extent to clarify which habitats across the study area are considered in the scoring, and the rationale for each score. Wildlife habitat should include uplands, wetlands, and intertidal habitats. For example, it is unclear how the Sunny Point East and Salmon Creek alternatives have a 0 score.	Wildlife habitat was mostly mapped by vegetation and aerial signatures, and the species that would use that habitat were inferred by the habitat types that were identified. Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the refuge as advised by the DOT&PF Statewide Environmental Office.	ADF&G	PEL Study Team
199	The refuge provides important habitat for migratory birds, especially feeding areas during the spring and fall migrations. The 'Important Migratory Bird Habitat Impacted' criterion does not appear to consider the seasonality of migratory bird habitat, and therefore we recommend reevaluating the scores (such as the 0 score for Sunny Point East and -2 score for Sunny Point West). Also, please provide a definition for migratory bird habitat. The Draft Level 2 Impact Table 3-1-24 indicates that this relates to nesting locations within 500 ft, however, this does not consider specific species present like Arctic tern, for which recommended pedestrian buffers from nesting locations is 600 ft; literature suggests considering buffers of 1–2 km	Level 2 scoring was revised to consider all property within the Refuge "important bird habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DO&PF Statewide Environmental Office.	ADF&G	PEL Study Team
200	Please update the numbers of anadromous streams potentially affected per Habitat Section's recent field work.	Anadromous streams impacted values were updated from, MP: 0, SPW: 8, SPE: 4, VB: 3, TL:0 to MP: 1, SPW: 14, SPE: 4, VB: 3, TL: 0.	ADF&G	PEL Study Team
201	The refuge provides opportunities for the public to engage in many important activities that are not specifically identified in the scoring criteria, rather they are lumped together and their importance diluted by being included in other categories. Examples include but are not limited to waterfowl hunting, fishing, general recreation, and gathering of plants. Some of these activities, in addition to other uses, are grouped within the criterion labeled 'Section 4(f)/6(f) Resources Affected'	Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	PEL Study Team

202	By integrating these important activities into the 'Section 4(f)/6(f) Resources Affected', it does not adequately reflect the level of importance they have for the people of the area. Further, our ability to evaluate the impacts of each crossing alternative on recreation, fishing, and hunting is diluted by using this category on the scoring table instead of delineating each of these activities. We recommend adjusting the criteria to add each of these activities as a criteria, which would properly acknowledge the impact the alternatives would have and the importance of the refuge for these activities. We recommend including at least these four aspects: 1.Public access to and within the refuge; 2.Opportunities for hunting waterfowl and fishing within the refuge; 3.Opportunities to recreate in the refuge; and 4.Opportunities for viewing, photography, education, and study of fish and wildlife	Recommendation noted. Many of these Refuge uses are specific functions or values apart of the WESPAK Functional Assessment provided as Appendix 4 of the Wetland Delineation Report. Particular functions of the Refuge will be analyzed further along in the NEPA process.	ADF&G	PEL Study Team
203	In the scores assigned to each crossing under the Section 4(f)/6(f) resources affected, only the Mendenhall Peninsula received a score of -2. Considering that all of the public uses of the refuge as defined in the management plan are lumped into this one criterion, scoring and ultimately ranking of impacts on the Scoring Table appear incorrect. If this category is not broken into the various components, all the crossing sites in these tables should be marked as -2 reflecting the multiple uses in this generalized category. The 4(f)/6(f) resources regulation requires that other alternatives be assessed if they exist; similarly, if off-refuge alternatives exist they must also be considered according to the management plan.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies, such as impacting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives located outside of the Refuge.	ADF&G	PEL Study Team
204	Integrity of habitat is not considered in the scoring. One example is the 3.1 acres of wildlife habitat impacted at Salmon Creek with a score of 0, and 2.2 acres of wildlife habitat are impacted at Sunny Point East also for a score of 0. This does not account for bisecting the refuge at Sunny Point East and potentially reducing the value of contiguous habitat and public use. The selected criteria in this draft assessment rank Sunny Point West and East routes as the first and third least impactful alternatives; however, bisecting the refuge may impact its value which would contradict the refuge's origin established in 1976. We recommend including additional criterion to reflect the level of impact to habitat integrity and public use with respect to bisection of the refuge.	The PEL study team rescored the alternatives with two additional methodologies, such as impacting or bisecting the MWSGR, and validated that the difference in scoring methodology does not substantially alter the outcome for alternatives. Particular functions of the Refuge such as habitat types will be analyzed further along in the NEPA process.	ADF&G	PEL Study Team
205	Habitat impacted by each crossing alternative is not scored according to its quality. Habitats further from existing roads and development in addition to proposed approaches and bridge abutments are of higher quality relative to wildlife use and the ecological function of the wetlands. Where crossing alternatives affect natural environment criteria distal to existing infrastructure, an additional scoring option may allow for these effects to be reflected in the final rank.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	ADF&G	PEL Study Team
206	We are interested in understanding more on how you scored the alternatives under 'Level of Public Support'. Please provide the information you used to make these determinations	The scoring for Level of Public Support is based on survey responses. The No Build reflected percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative received.	ADF&G	PEL Study Team

207	We recommend weighting the criteria used in Level 2 Screening based on the level of significance to the overall category. We recognize this could be challenging, given weights would be based on value judgements, but it is an important consideration, nonetheless.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	USFWS	PEL Study Team
208	This could be done by convening small teams of experts for some of the categories to spend time discussing and assigning weights based on their experience and expertise. Alternatively, a survey could be sent out to experts so that weighting recommendations are kept anonymous.	Recommendation noted.	USFWS	PEL Study Team
209	If weighting were utilized, it may be more appropriate to avoid calculating total scores for each alternative and instead calculate scores for each category for comparison purposes.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	USFWS	PEL Study Team
210	In general, it may make more sense not to make this a wholly quantitative effort. More description and narratives would be useful to fully understand the context and potential impact of each criterion.	Recommendation noted.	USFWS	PEL Study Team
211	We note that some of the methods used to develop the current scoring table result in misleading scores. Specifically: The categories with more questions are weighted more heavily in the overall score, which shouldn't necessarily be the case.	Recommendation noted.	USFWS	PEL Study Team
212	Some criteria have scores between -2 and 2, while others have scores between 0 and 2 or 0 and -2. This discrepancy automatically increases the weight of criteria with the wider range. All criteria should use the same scoring scale.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	USFWS	PEL Study Team
213	If these discrepancies cannot be rectified, at a minimum they should be clearly described in the document and thoroughly considered in the decision-making process	A narrative of the Level 2 Screening scores will be provided in the PEL Study.	USFWS	PEL Study Team
214	For each alternative, please tally and include the total score for each screening category (e.g., "Natural", "Social", etc.) as a separate column to clarify how each alternative ranks by category.	Recommendation noted. Additional criteria for scoring may be analyzed further along in the NEPA process.	USFWS	PEL Study Team
215	The "Public Support" category is represented as a percentage for the "No-Build" alternative and rankings for others. The same scoring rationale should be used for this category under all alternatives	The No Build score reflects the percent of responses to the build/no build question while the values for the alternatives are from the number of preferred alternative comments received.	USFWS	PEL Study Team
216	It was stated during the most recent Advisory Committee meeting that scores would not necessarily be the only thing used to decide which alternatives move forward. If this is the case, how will the decision be made? This process should be documented clearly and shared with the Advisory Committee and the public	Scores are used as a screening tool for alternative comparison and overall feedback. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	PEL Study Team

217	In general, the Service requests additional clarity regarding the inclusion of PEL Study outcomes in future NEPA processes. How will the data and comments gathered during the PEL Study be used to inform NEPA decision-making?	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis.	USFWS	PEL Study Team
218	The Service recommends not eliminating any of the remaining alternatives prior to NEPA, given the current paucity and uncertainty of environmental data and the associated difficulty assessing impacts. -We especially want to emphasize the continued inclusion of the Salmon Creek crossing alternative beyond the Level 2 Screening process. Given what we do know about the baseline environmental condition of each crossing alternative, we expect the Salmon Creek alternative will have the smallest impact on the Mendenhall Wetlands State Game Refuge (Refuge) and the wildlife that rely on it for important life history needs.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	USFWS	PEL Study Team
219	In particular, prior to eliminating additional alternatives, we feel that the following data/metrics used in the screening should be updated or improved: -Wetland delineation – we recommend inclusion of the Southeast Alaska Land Trust's (SEALT) recent functional assessments.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	USFWS	PEL Study Team
220	Impacts to anadromous streams – currently, this measurement only includes an assessment of the number of streams, but should also consider stream miles, habitat quality/type, number of species, etc.	Recommendation noted. Additional criteria for scoring such as habitat and species may be analyzed further along in the NEPA process.	USFWS	PEL Study Team
221	Migratory bird habitat impacts – currently, the PEL study only considers the number of nests as a metric, but to fully understand impacts, additional information is needed for rearing, staging, overwintering, etc	Recommendation noted. Additional criteria for scoring such as migratory bird life stages may be analyzed further along in the NEPA process.	USFWS	PEL Study Team
222	The wetland habitats within the study area support a wide variety of fish and wildlife because the Refuge (and adjacent public areas and access corridors managed by the CBJ, State of Alaska, and SEALT) is intact as a protected area. Fragmentation of the wetland habitats, streams, riparian areas, forested areas, and buffers by a second crossing could have serious impacts to trust resources and the ecological services that this intact Refuge provides.	Comment noted.	USFWS	PEL Study Team
223	Hydrologic connectivity is essential to the Refuge's continued function as an estuary and as important bird and fish habitat. Therefore, it is imperative that the PEL Study carefully documents and considers all potential direct and indirect impacts of each of the potential crossings on connectivity not just within the Refuge but also among the adjacent mitigation sites. We recommend close coordination with the Alaska Department of Fish and Game and SEALT to ensure that the most up-to-date information is included in the study.	Comment noted.	USFWS	PEL Study Team

224	The study area, and especially the alternatives located within the Refuge, support a diverse assemblage of bird species. This designated Important Bird Area is already threatened by adjacent urban development (international airport, sewage treatment plant, landfill, aquaculture facility, etc.), and additional impacts could have a significant negative impact on remaining bird habitat. Several birds of conservation concern occur within the boundaries of the study area, including the marbled murrelet (Brachyramphus marmoratus), black oystercatcher (Haematopus bachmani), rock sandpiper (Calidris ptilocnemis), short-billed dowitcher (Limnodromus griseus), lesser yellowlegs (Tringa flavipes), red knot (Calidris canutus), California gull (Larus californicus), olive-sided flycatcher (Contopus cooperi), rufous hummingbird (Selasphorus rufus), chestnut-backed chickadee (Poecile rufescens), varied thrush (Ixoreus naevius), and Vaux's swift (Chaetura vauxi). The Alaska Shorebird Conservation Plan III summarizes the importance of the area well: "The Mendenhall Wetlands State Game Refuge, in southeastern Alaska, is widely acknowledged to be a key migratory shorebird stopover location in the region." We recommend that screening prioritizes protection of these environmental conditions and species of concern, and that crossing locations within these important areas be avoided to the maximum extent possible. A second bridge that bisects the Refuge could cause irreparable damage to the habitat available for migratory and resident birds and reduce the supply of nutrients for birds whose populations depend on this area. A crossing through the Refuge may also be subject to additional environmental reviews, including evaluation under the Migratory Bird Treaty Act.	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	USFWS	PEL Study Team
225	Eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA). Amongst other protections, BGEPA prevents take of eagles and their nests either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). The most recent eagle surveys for this area (as noted in the Environmental Setting Report) occurred in 2005. Patterns of use have likely changed since then, and we recommend conducting eagle nest surveys prior to the NEPA process (ideally in early spring, when nest location and status can be determined), using a qualified biologist. The information from these surveys, together with guidance from the Service, will help determine 1) which crossings may be most detrimental to eagles, 2) what avoidance and minimization measures may be appropriate for each crossing, and 3) whether permits may be needed for each crossing.	Recommendation noted. A more robust analysis on bald eagle nests will occur further within the NEPA process.	USFWS	PEL Study Team
226	The rivers and streams in the study area support Pacific salmon and other fish that contribute to the richness and functionality of the greater ecosystem. We recommend that any of the crossing alternatives that are selected for further consideration have minimal impact on the viability of these fish species and the overall hydrologic integrity of the systems in which they occur. The Wildlife and Fish Resources Technical Memorandum developed for the PEL specifically noted that the Refuge provides an important nursery rearing area for juvenile salmon and other marine fishes, which is an important consideration for all crossing alternatives located within Refuge boundaries.	Comment noted. A more robust analysis on fish species will occur further within the NEPA process.	USFWS	PEL Study Team

227	Section 4(f) of the National Transportation Act of 1966 requires that transportation projects avoid and minimize impacts to protected public lands like the Refuge, City and Borough of Juneau (CBJ) conservation areas and parks/trails, State recreation areas/trails, and mitigation sites. This is of interest to the Service in that these 4(f) lands support trust resources and important habitat connectivity. This law and associated regulation instruct that transportation projects must consider all feasible and prudent alternatives and prefer alternatives that do not impact protected 4(f) resources. After avoidance and minimization, if impacts to 4(f) resources are necessary, they must be mitigated. Mitigation would account for impacts to the functions and uses of those resources in addition to direct impacts such as fill and construction.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. Formal consultations with agencies would occur during a future NEPA phase. Section 4(f) review and formal consultation outcomes are not known at this time, and not within the scope of a PEL Study. It is too early to say whether or not an individual analysis will be required under 4(f). Mitigation has not been determined and would factor into a de minimis finding.	USFWS	PEL Study Team
228	Based on the habitats likely to be affected under each alternative, we anticipate the need for compensatory mitigation. Have you identified potential mitigation lands available to offset adverse impacts of development for each of the alternatives?	Mitigation requirements and costs are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	USFWS	PEL Study Team
229	SEALT has expressed concern throughout the duration of this 2+ year PEL Study that relevant experts (primarily at resource agencies) are not being properly consulted by the PEL Study team.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process. In addition, seven advisory committee meetings have been held to solicit feedback from regulatory agencies and technical experts.	SEALT	PEL Study Team
230	PEL Study materials and reports have not been provided to TAC members with sufficient advance time for review, and sometimes not at all. Last fall, when the PEL Study team decided to move ahead with field work to supplement the Level 2 Screening process, we had three business days to review the technical work plans before they took effect for contractors and subcontractors to begin the work. This comment document – on more than 300 pages of technical reports and the Level 2 scoring that resulted from that data – is being prepared during a short advisory committee comment period, after which we understand alternatives will be ranked and eliminated ahead of NEPA.	Comment noted. None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
231	The TAC members' comments are not published on the study website, and are not made available to fellow TAC members by the PEL Study team unless the commenting agency sends it out to the entire list of TAC members themselves. A robust public process would ensure that all TAC comments are shared and responded to internally, and then later published for review by the public during the public comment period.	All comments will be logged and are included as an appendix to the PEL Study for public record.	SEALT	PEL Study Team
232	In 2022 and 2023, SEALT highlighted the need for this PEL Study to consult proactively with the members of the TAC who have subject matter expertise and deep experience with the study area and the resources that could be impacted by a second crossing. In general, a PEL study process is intended to eliminate project alternatives that include fatal flaws or may be unreasonable to pursue due to regulated impacts or costs. Consultations have occurred, but colleagues at multiple agencies agree with SEALT's impression that these were not comprehensive discussions with meaningful outputs that would help cultivate the strongest set of alternatives for this study.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	PEL Study Team

233	For example, SEALT's one-on-one consultation with the PEL Study team did not focus on our wetlands expertise from operating the state's longest standing compensatory mitigation program, or our experience selecting and managing mitigation for impacts to the exact type of wetlands that would be impacted by a second crossing. Instead, that 2023 meeting mostly revolved around DOWL's interest in ADOT&PF condemning SEALT mitigation sites at Sunny Point and Hendrickson Point (the Douglas terminus of the two Sunny Point alternatives). Our staff's notes from that consultation recorded DOWL's dismay that a land trust – which stewards private land in perpetuity for public benefit – does not have an easy-to-use property disposal process, even though the lands in question had been acquired as mitigation for wetland impacts created by expansion of the Juneau airport.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation and assesses impacts based on publicly available data sources.	SEALT	PEL Study Team
234	The land trust's duties are to steward and enforce the conservation values of the land we own or in which we have legal interest, and we are bound by contracts, deeds, easements, covenants, mitigation plans, and accreditation standards to prevent and address impacts to the uses, functions, and values of each property. It is with these duties in mind that, despite DOWL's poor execution of the JDNC PEL Study, we continue to engage as a Technical Advisory Committee member to provide the information and advice about potential impacts and to encourage advancement of alternatives which will be the least damaging to SEALT lands and the Refuge that they rely upon to function.	Comment noted. NEPA analysis would provide opportunity for more robust data collection and detailed consultation with SEALT. The PEL study is a planning-level evaluation.	SEALT	PEL Study Team
235	It is important for SEALT to disclose that in 2023 and 2024, SEALT completed a massive mapping and assessment project for Taashuyee-Chookan.ani, or the Mendenhall Wetlands complex, collectively called the SEALT Habitat Mapping and Assessment Project.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	PEL Study Team
236	The SEALT Habitat Mapping and Assessment Project includes two significant components: 1. A comprehensive revision of the area's habitat map from field surveys, drone surveys, orthophotography, LiDAR, and elevation models; and 2. A complete set of functional assessments (WESPAK-SE and NATAK-SE) for the 5,252-acre Mendenhall Wetlands complex between Juneau and Douglas Island, divided into 18 watershed-based assessment areas and 37 shoreline segments.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis.	SEALT	PEL Study Team

237	The work products from the SEALT Habitat Mapping and Assessment Project provide current, thorough, and scientifically reliable data for our assertions about the habitat values, wetland functions, and relative potential impacts associated with crossing alternatives in the PEL Study area; the same cannot be said of the PEL Study's various survey reports.	Comment noted. All publicly available and relevant information would be considered during the NEPA analysis. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. In addition, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team
238	SEALT operates the state's longest standing compensatory mitigation program for wetlands and manages wetlands for a variety of conservation purposes, so we have paid particular attention to the DOWL's wetland report. We were surprised to find no relation between the wetland survey report and the impact quantification matrix or scores and no functional assessment as in the report's title and promised by DOWL in September 2023. Most alarmingly, there is no summary of the wetland acreage to be impacted by type and alignment.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team
239	It was also surprising to read a wetland report on largely tidal wetlands that avoids using the term "salt marsh". For the three groups of alternatives for which acreages are tallied, it is not clear what is included in the totals. It is even less clear exactly what categories and footprint are indicated by the very small "wetlands" acreages in the impact matrix and how this may be drawn from the DOWL delineation maps.	The PEL Study is pre-NEPA and pre-permitting. Both USFWS National Wetland Inventory and USACE Section 404 permitting uses Cowardin classifications as it more precisely defines aquatic habitat types by including additional features such as water chemistry, nontidal, saltwater tidal, and freshwater tidal water regimes, and broader classification of vegetation.	SEALT	PEL Study Team
240	It would be helpful for the delineation report acreage table to include broadly recognized types (high marsh, low marsh, vegetated, unvegetated, freshwater, estuarine, etc.) as well as Cowardin codes and names. They should be displayed by alignment (rather than groups of alignments) so the contributions of each wetland type to the impact and rating matrices can be tracked—presumably the purpose of the report and delineation.	Comment noted. Wetland habitats were broken out by alignment at a later date on March 13, 2024.	SEALT	PEL Study Team
241	We did not receive the shapefiles that we - and several other TAC members - requested, so are unable to create useful wetland acreage tallies from the DOT/DOWL delineation by SEALT Comments - JDNC PEL Study Level 2 Screening 6 alignment area. We rely on other mapping, including our own and that of the CBJ, for comparison with the report and impact matrix.	Comment noted. Further coordination is needed to distribute shapefiles.	SEALT	PEL Study Team
242	First, we will provide a review of the DOT/DOWL wetland delineation at proposed crossing sites. Since functional assessments are lacking, we also share highlights of our own tidal wetland functional assessments to illustrate how they may inform impact assessment.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team

243	Tidal delineation is straightforward. Nearly everything below high tide line is jurisdictional (section 404 and/or section 10), from salt marsh to several feet below Mean Lower Low Water, but special features and types should be mapped accurately. The tidal portion of the delineation and classification map is the least problematic portion of DOWL's report, with types and modifiers reflecting our understanding and mapping of the area, with a few exceptions. Some vegetated intertidal and lower elevation mudflats were missed; our habitat mapping focused on vegetation characteristics rather than strictly on tidal elevation to distinguish low marsh/high marsh, while DOWL used regularity of flooding, primarily mean high water water.	Comment noted. The SEALT 2024 Assessment Area map and 2023 Habitat map were reviewed for the wetland delineation report.	SEALT	PEL Study Team
244	Considering the importance of these wetlands, it would have been better to use more recent, lower tide, and/or later growing season imagery and more ground-truthing when selecting sites for alternatives. Reviewers were told that March imagery several years old was used in this report; low marsh and mudflats are both colored tan and may have been confounded, perhaps leading to under-mapping of low marsh, particularly sparser alkali grass, succulent marsh or areas of expanding marsh. Algal mat, persistent algal growth and very low tidal areas were not mapped. In our own mapping, it has been essential to refer to images from multiple seasons and years for good representation of the lowest tidal areas and differentiation of vegetation. Ground and drone photography are also helpful to document boundaries.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	PEL Study Team
245	The mapping and classification of high marsh and heavily ponded areas in the Sunny Point area were given some of the special attention that they deserve, but should be better documented. Along the shore and road embankment, there are heavily ponded areas of wet high marsh, much of this within SEALT conservation parcels.	Comment noted. The PEL study is a pre-NEPA survey - not intended to address the level of detail required by the NEPA process. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	PEL Study Team
246	The Sunny Point area has freshwater influence, likely from both upwelling and stream input, but most of the area remains tidal. Some is brackish estuarine wetland, with less salt tolerant species on prominences and debris. The wet upper high marsh on both sides of Sunny Point are the areas that would be affected directly by fill from a Sunny Point East alternative. These unique areas are of great seasonal importance to waterfowl and other wetland birds. (Flocks of hundreds of Canada Geese and Mallards have been foraging and resting in these areas in the past month and in previous years.)	Comment noted. A more robust analysis on migratory bird habitat within the Refuge will occur further within the NEPA process.	SEALT	PEL Study Team
247	Freshwater wetland delineation can be more nuanced. Unfortunately, the DOWL delineation at Hendrickson Point is incomplete. Of the approximately 23 acres beyond the shoreline upland forest apron, DOWL mapped only approximately 3.5 acres within the delineation area as wetland. In contrast, nearly 14 acres in the same area were mapped as wetland in the CBJ 2014 planning-level wetland survey. The incomplete delineation would in theory affect the wetlands impact quantification and rating, although it appears from the reported wetland impact acreage (1.3) at Sunny Point East that Hendrickson Point wetland acres may not have been included in totals.	Hendrickson Point has conflicting designations as a conservation area in the comprehensive plan but also zoned for residential uses. It is not clear the intent of Hendrickson Point. The PEL study team has applied the conservation criteria to Hendrickson Point in an abundance of caution and the scoring has been revised in consideration of Hendrickson Point as a protected area.	SEALT	PEL Study Team

248	It appears that DOWL 1) neglected to review existing CBJ wetlands mapping for the Hendrickson Point and Mendenhall Peninsula area, 2) failed to delineate the full area and jurisdictional waters within each JDNC PEL Study alternative area, and 3) did not report wetland or wetland type acreages by alternative impact area. Omitting acreage from past surveys in DOWL's report to fill visible data gaps and failing to include their own data in the Level 2 Scoring Table undermines the PEL Study screening process.	The closest reference found is the CBJ Wetlands Management Plan (2016) but there is no legible mapping for the Mendenhall Peninsula as referenced. Please share reference.	SEALT	PEL Study Team
249	Some of the discrepancy in delineated freshwater wetland may be explained by a difference in mapping units and level of regional experience/expertise between the CBJ and DOWL surveys. Both were planning-level efforts, although the area covered by DOWL was much smaller, with more detailed typing (Cowardin vs Adamus types). The CBJ mapping employed 1-acre type limits for an area several orders of magnitude larger and small upland patches or mosaics were not carved out.	The closest reference found is the CBJ Wetlands Management Plan (2016). Please share reference.	SEALT	PEL Study Team
250	Much of this area could be considered a mosaic of scrub-shrub and forested wetlands, with small inclusions that might be considered upland (although perhaps not at a planning scale), including some areas lacking sufficient hydrophytic species cover but otherwise wetland in character. Much of the "missed" area in DOWL's report has significant cover of rusty Menziesia, a shrub classified as "facultative upland" although it is typical of wet shrublands and forest in southeast Alaska. With experience, signs of adaptive wetland morphology such as growth in stilted clumps on hummocks, and stunting of trees, are recognized as additional indicators of hydrophytic vegetation, allowing correct identification of such areas as wetland.	Rusty Menziesia, commonly known as Fool's Huckleberry or False Azaela, is noted in the datasheets in accordance to the USACE State of Alaska 2016 Wetland Plant List as Menziesia ferruginea. Sample points from Hendrickson Point noted dominant men. fer. as high as 40 percent in areas classified as wetlands although a Facultative Upland species. This was not classified as morphological adaptation due to the absence of men. fer. solely growing within hummocks and the general lack of snagged trees.	SEALT	PEL Study Team
251	Key species were also missed by observers. Crabapple, not noted in the descriptions, is common in the Sunny Point West and Sunny Point East alternatives' alignment crossing Hendrickson Point. Inappropriately considered "FACUP" ("facultative upland," usually occurring in uplands but sometimes in wetlands), it is common in forested/shrub wetlands surrounding open peatlands in our region such as those at Hendrickson Point.. It should also be noted that near sea level here, both mountain hemlock and shore pine are found almost exclusively in wetlands, although they may persist in drying areas; both are very common in the Hendrickson Point area impacted by the Sunny Point alternatives. Mountain hemlock in stunted form due to the wetland habitat is the dominant species in much of the scrub shrub (areas with woody vegetation less than 20 feet tall) including the vicinity of sample point 12, but was not noted as such.	Crabapple (Malus fusca) was not encountered during the wetland, intertidal, or migratory bird survey. This species is considered a Facultative Wetland (FACW) according to the USACE State of Alaska 2016 Wetland Plant List. The most commonly encountered hemlock was Western but has the same indicator status as Mountain hemlock as Facultative. Sample Point 12 did not contain any tree species in the shrub or tree stratum due to beyond 30 feet from the soil test pit.	SEALT	PEL Study Team
252	Given the difficulties of delineation with the USACE's weak regulatory plant indicator lists for Southeast Alaska, it is not surprising that some wetland areas were classified differently by evaluators unfamiliar with Southeast Alaska. In this case, however, a majority of the wetlands at Hendrickson point were overlooked in DOWL's delineation, around two times the total wetland reported in the PEL impact table for the entire Sunny Point West area and 10 times that of Sunny Point East.	The footprints of Sunny Point East and West largely vary due to the different preliminary design elements of the intersections.	SEALT	PEL Study Team

253	We observe, however, that DOWL's impact acreages were tallied for footprints much narrower than the 360 ft delineation areas and perhaps only along Egan Drive. We recently were able to view footprints on the DOWL data portal that are smaller yet, omitting some of the area along Egan at E Sunny in previous alignment diagrams and showing a narrower area on Hendrickson Point. We were not given codes to use the measurement tools on the PEL portal. We have already taken time to trace and georeference the 150 ft and 360 foot areas, and now there is a third set that may have been the actual alignments used; this is unreasonably cumbersome and inefficient for reviewers. It amounts to mis-represention of project impacts and obscures what should be a shared information base.	The wetland delineation fieldwork included the proposed alignments with 150-foot buffer from the edge of the footprint. Exact feet of footprint may vary in some areas due to the alignment footprint containing intersection features or just the roadway.	SEALT	PEL Study Team
254	Some of the "missed" areas may be drying as the two enclosing streams become incised. But these appear to be mostly typical, if somewhat mosaiced, forested and shrub-scrub bog-edge wetlands easily identified from aerial photography and LiDAR as well as a quick transit of the area. The anadromous streams and extensive wetlands that have been overlooked fall within a zone proposed for fill and road construction impacts. These wetlands and streams were apparently omitted from "impacted wetland acres" tallies used for comparing alternatives, so this omission is significant and concerning.	Aerial photography and LiDAR imagery were reviewed prior to and post field studies. Although ADF&G does not classify the streams within the project footprint as anadromous, field notes did not document any presence of fish or other aquatic species. The habitat surrounding the mapped streams were largely forested with dominant species of Western Hemlock (FAC) and Fool's Huckleberry (FACU). Even with wetter than normal climatic conditions, yellow-skunk-cabbage was the only OBL or wetland specific species found along the stream banks to help indicate wetland conditions.	SEALT	PEL Study Team
255	While the inclusion of data sheets and photo points within the report is helpful, the Hendrickson Point area requires more documentation. Only one full sample point is shown for the large area classified as upland within the alignment. Given its marginal status as upland on said data sheet (1% cover away from wetland classification in a map known to have more than a 1% margin of error) and the lack within the sample data of species with significant cover in the immediate vicinity of the point, the site selected for the point was neither representative nor definitive. More points representative of this area could better support a delineation.	Dominant species of the sample point showed little wetland vegetation despite wetter than normal conditions. Even in a flatter area that may be retaining water due to the landscape, the area did not contain any primary hydrologic indicators such as saturation or a high water table.	SEALT	PEL Study Team
256	The portion of the alignment adjacent to North Douglas Highway was apparently not visited or delineated, perhaps due to private land permissions, although imagery and roadside views may suffice for estimated boundaries. The mapping also failed to show an access trail that would be impacted by the two Sunny Point alternatives within Hendrickson Point. Freshwater wetland areas identified in CBJ's 2014 mapping were also missed along the Mendenhall Peninsula alignment.	Field surveyors took extra precaution to be respectful to property owners and did not access private parcels even if e permission was pre-arranged. Trail locations are not typically documented for wetland delineations. Mapped forested (few) CBJ wetlands not encountered during field survey included north Mendenhall Peninsula within private property and field surveys captured more fw wetlands in this area and the southern portion than shown on CBJ mapping.	SEALT	PEL Study Team
257	SEALT concludes that additional GIS and field survey work is needed for a useful wetland delineation in order to rate overall wetland impacts to the alignments. While it does not carve out small upland areas, the existing CBJ planning-level wetland mapping of Adamus wetland types may be more useful than DOWL's delineation for the areas it covers, including most of Hendrickson Point. Additional work appears to be needed to accurately identify freshwater wetlands outside the CBJ mapping or for more detailed mapping within the CBJ-mapped areas.	Comment noted.	SEALT	PEL Study Team

258	The Clean Water Act establishes guidance for calculating unavoidable impacts to aquatic resources on a functional and watershed basis. Not all wetlands have the same function or role in the surrounding ecosystem and community; each should be assessed to understand the impacts from each crossing alternative and the necessary offsets for those impacts.	A functional assessment was completed on March 13, 2024.	SEALT	PEL Study Team
259	The PEL Study's Level 2 Screening Criteria that relate to wetland impacts reflect within-fill-footprint acreage only, which does not follow the USACE Alaska District's current guidance on assessing impacts within and beyond a fill footprint.	The fill footprint for the wetland evaluation included each alignment plus a 150-foot buffer. The wetland delineation was completed for the purpose of the PEL Study and appropriate for determining the existing habitats within the project's footprint as opposed to permitting when design features such as structures are more defined.	SEALT	PEL Study Team
260	The PEL Study's report does not include any functional assessments, and the wetland delineations are not complete for the areas to be impacted by each alternative. DOWL's other wetland mapping efforts (Intertidal Habitat Map and land cover maps) do not include sufficient detail or coverage on the overall wetlands to put the delineated areas in context for even a preliminary impact rating such as this. DOWL has leaned heavily on outdated National Wetlands Inventory (NWI) and an NWI-related land cover maps that are unreliable for Southeast Alaska due to the age and precision (or lack thereof) of the data. While DOWL has provided a credible tidal delineation of Cowardin types, wetland mapping for freshwater wetlands and for the overall project area is lacking.	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team
261	SEALT has current functional assessment data and mapping for most of this area conducted by experienced wetlands specialists who are intimately familiar with this wetlands complex; our data does not support the acreages in DOWL's Draft Level 2 Scoring and Impact Tables that consider a single wetlands criterion, very narrowly defined.	Comment noted. All sources of valid and relevant information would be considered during the NEPA analysis.	SEALT	PEL Study Team
262	1. When is DOWL planning to produce functional assessments of the wetlands and waters to be impacted according to the work plan?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team
263	2. What protocol will DOWL use?	Wetland delineation will be in accordance with the 1987 USACE Wetlands Delineation manual and the 2007 Alaska Regional Supplement. WESPAK is the protocol for the functional assessment.	SEALT	PEL Study Team
264	3. Will the alternatives be re-scored using the functional assessments?	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	PEL Study Team
265	4. Will the functional assessments be completed before or after the public comment period opens?	The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team

266	5. How will those functional impacts for each alternative's harm to special aquatic sites be communicated to stakeholders?	The scores and function ratings for specific functions or values including aquatic habitat are included as Appendix 4 of the wetland delineation report. Impacts for each alternative's harm to species will be analyzed during the NEPA process.	SEALT	PEL Study Team
267	6. Will DOWL or another qualified delineation team return to Hendrickson Point and Mendenhall Peninsula to complete those delineations and adjust impact acres accordingly?	If approved by the PEL Study Team, another delineation may be feasible during the NEPA process.	SEALT	PEL Study Team
268	The purpose of this report was not clear, and the findings not well articulated, but nevertheless includes an important observation: "This memo does not provide an analysis of the potential effects on intertidal habitats, nor is it intended to rank or prioritize the alternatives. Such assessments would be performed during the NEPA process, as part of a comprehensive review of the project."	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	PEL Study Team
269	SEALT agrees that the intertidal map gives little information not supplied in more detail within the wetland delineation report, and report findings (low marsh and upper intertidal acreages, alignment width, and the presence and importance of deltas) were not used in the rating.	The intention behind the report was to ground-truth intertidal mapping and document observations on tidal levels, vegetation, wildlife presence, habitat features, etc. Potential effects and ranking will be analyzed during the NEPA process.	SEALT	PEL Study Team
270	The intertidal habitat survey and mapping would be more useful if it included more types and applied to the Mendenhall Wetland project area as a whole, so that the importance of habitats impacted by the PEL Study's alternatives could be evaluated in relation to the entire area. The project preliminary cover map did include this larger area, and the report said it would refine that. If this has been done, the overall map should be presented for review and shared with the TAC. Only small areas were presented in the report, the 366 ft wide alignment for each alternative, and with few habitat types.	The area covered in the report includes the footprint within Fritz Cove between the Mendenhall Peninsula and Douglas Island.	SEALT	PEL Study Team
271	While the report does not appear to have contributed to the PEL rating of alternatives other than perhaps for "intertidal zone directly affected," it makes pertinent observations and has potential to contribute to ratings, with some corrections and adjustments. The Intertidal report compiles some useful information that could inform the PEL ratings:	Comment noted.	SEALT	PEL Study Team
272	For example, the intertidal crossing distances given for each alignment should be used as a rating criterion. This is an obvious and simple indicator related to many types of impact from direct and indirect impacts to the refuge, its habitats and human uses.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	PEL Study Team
273	Low marsh acreage in the potential impact area (alignment plus buffer) should also be used as a rating criterion, although it should be accompanied by a criterion for high marsh as well, or a rating combining those. (Coastal meadow is important, but perhaps not abundant enough in the alignments to have a separate rating, although it could be mapped.)	Comment noted.	SEALT	PEL Study Team
274	Special habitats mentioned in the report such as mussel/rockweed habitat, channels, and deltas that contribute greatly to productivity and diversity should also be mapped or otherwise noted for each alignment as rating factors.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation.	SEALT	PEL Study Team

275	Unfortunately, the habitat categories are quite limited, non-standard and inconsistently applied. High marsh and coastal meadow are not mapped, but instead combined with other types. In addition, it is not clear which criteria were used for the top of the “low marsh” habitat in this mapping effort (end of sedge or MHW), or the top of the upper intertidal (HTL, 25+, or other site-specific considerations).	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	PEL Study Team
276	High marsh habitat can be defined in different ways but is a very abundant, important, and heavily used habitat that has been omitted from this map effort. Oddly, the descriptors for the report’s “upper intertidal“ do not include the high marsh estuarine emergent Cowardin code, which is the dominant type within the report’s upper intertidal; it only shows codes for scrub-shrub and forest. It should be accompanied by a modifier indicating irregularly flooded, meaning above mean high water.	The Intertidal Habitat Survey Work Plan covers information on habitat classification, categories, and field protocols.	SEALT	PEL Study Team
277	High marsh should have its own category and should be acknowledged as marsh. It is most often defined by vegetated intertidal between mean high water and high tide line, or could include a storm or splash zone above that, but would not normally include areas up to 25+ in this protected location. It would be better to have one salt marsh category that includes both than to combine high marsh with supratidal meadow and forest habitats.	Comment noted.	SEALT	PEL Study Team
278	While high marsh could be defined as starting at the upper extent of Lyngbye sedge, that is variable by site. Lyngbye sedge is really a lower-to-mid-tidal plant and can extend above mean high water although in some places high marsh grasses dominate areas below mean high water. Other salt marsh species, including succulents and alkali grass, dominate lower low marsh areas, so a lower low marsh category could also be mapped for additional resolution. (The draft SEALT Habitat Map includes high marsh, lower low marsh, and coastal meadow.)	Comment noted.	SEALT	PEL Study Team
279	It might also be useful in this project area to map “wet high marsh” and/or “ponded high marsh” as types. The areas near the road at the Sunny Pt alignments deserve special attention because of their unique and transitional characteristics. These include tidal areas with significant freshwater influence from streams as well as likely from upwelling.	Comment noted.	SEALT	PEL Study Team
280	It is interesting that the intertidal map carves out as upland extensive areas along Egan at Sunny Point that are well below the 25+ ft defined in the text as the top of upper intertidal. Some, but not all, of this area is slightly above the high tide line as defined from the 2013 LiDAR. It is also noted that while the text states that intertidal is here defined as down to - 10, elsewhere in the study the lower extent of intertidal is considered -4. Which were used for calculating intertidal acreages in the ratings matrix?	The Intertidal Habitat Survey Report states the upper limit of tidal influence in some areas within community structures of up to 25' from the MLLW, a relative difference of 15' (the Mean High Water). These areas along Egan Drive would not be classified as intertidal as they are vegetated areas and documented in the field surveys. Calculations were based off exact linework provided from the field surveys and may vary depending on exact location.	SEALT	PEL Study Team

281	The bird habitat survey was not conducted in a way or at a time that could be expected to contribute meaningful data and has not contributed in any way to the impact rating, as the Level 2 Scoring and Impact Tables appear to ignore the recommendations in the report. It does not conform even to the protocol that it mentions as a model, since it does not include repeated surveys, and the referenced "model" protocol was not designed for tidal wetlands which comprise a significant portion of the survey area. Area searches can be useful for some survey needs but are not productive for disturbance sensitive flocking species in open areas. More distant observations with spotting scope are typically needed for shorebird and waterfowl flock counts.	The intention of survey and report is to classify and map habitat types pertinent to migratory birds. The scoring methodology included proximately to nesting locations, indicating an higher value of habitat to a degree. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	PEL Study Team
282	Most shorebird migration was over by the time of the surveys and the surveys were not focused well and were too brief to capture waterfowl or other species' use. The report contributes no information on the area other than some observations concerning general habitat use by species groups. Seasonal species records are compiled but not used in any meaningful way, and clearly not consulted in planning the surveys. Better information on species occurrence by date within the alignment areas is available. To its credit, however, the bird report recommends that impact analysis be based on habitat available and known species associations with the available habitat. This approach was not used in the ratings, however.	The intention of survey and report is to classify and map general habitat types pertinent to migratory birds species along with species observation. An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	PEL Study Team
283	DOWL's bird habitat quantification and rating is not credible and invalidates the PEL draft alternative rating and process. Project proponents will need to revise or entirely overhaul this rating by using a combination of existing information sources. If DOWL or its contractors lack background or skills to identify and correctly use existing sources, they would reasonably be expected to adjust staffing or seek guidance from those who created these sources and from other authorities or experts on avian habitat in Southeast Alaska.	An analysis of impact to specific bird habitat types will occur within the NEPA process and is outside of the scope of the Level 2 scoring methodology.	SEALT	PEL Study Team
284	The stated purpose of the PEL Process is to link key regulatory and environmental constraints to siting decisions early in the planning process. In this case, that means as a first step, identifying key resources and regulations, then pursuing avoidance of impacts to the refuge, its habitats, and human uses. That requires appropriate use of available data and clear articulation of sources, assumptions, and impact quantification/rating methods. Unfortunately, the bird habitat rating fails on all of these counts.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team

285	The PEL bird habitat impact rating shows “0”s for Sunny Point East and Mendenhall Peninsula. By any reasonable measure, the Mendenhall Peninsula and Sunny Point alternatives cross some of most important bird habitat use on the refuge; significant impacts would be expected from any crossing design at those locations. The entire refuge is designated a globally Important Bird Area.	The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome. Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	PEL Study Team
286	How did this happen? DOWL states it calculated acreages from the intersection of the alignments within 500 ft buffers of nests, but in its rating calls the criterion a 500 buffer from “hotspots”. Is this another name for a nest, or are these bird concentration areas identified in the most recent systematic survey of Mendenhall Wetlands bird habitat use (Armstrong et al., 2004)? In areas labeled as hotspots, large numbers were consistently observed across seasons. Use of this source is sound if applied correctly and with an understanding of its limitations (e.g. low tide only, some areas not covered, or partially covered). Use of an ad hoc collection of nest observations, however, is not at all useful or valid, since the most important bird habitat uses of this wetland area are not for nesting, but migratory stopover and wintering. Nests certainly occur on the refuge in the upper high marsh, on islands and on other upland edges, but we are not aware of a systematic survey of these and in any case, it would not be a good indicator of wetland habitat use or value.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	PEL Study Team
287	If the 2004 Hotspots are used instead, a 500 foot buffer does not adequately cover the areas referenced. The ‘points’ represent broad, yet relatively distinct, areas viewed at distance at low tide. To clarify this for those wishing to use the Hotspots data to compare habitat areas, the GIS analyst and co-author for the Hotspots report, Richard Carstensen, has drawn polygons representing the surveyed areas (Figure 1). The sites can be linked to survey data tables and Hotspots report analyses by the name or code of the survey area, for example, r05=Mendenhall river mouth. While the data and analysis are useful, several areas within the proposed crossings were not covered in the surveys, or their coverage in the survey was incomplete. These include Sunny Point, 5 mile Creek, Falls Creek, and Twin Lakes. This is also clearly noted in the Hotspots report.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	PEL Study Team

288	For the areas lacking the full complement of surveys, reasonably equivalent data are needed. More recent data from The Cornell Laboratory of Ornithology online birder observation database, eBird, as well as other observations, generally confirm Hotspots results where its surveys were complete and add important information on additional areas. To assist project planners and refuge stakeholders, we have summarized bird habitat use at each crossing site using the Hotspots database and report. For areas not fully covered in the Hotspots survey, we provide summaries or highlights of additional observations. This summary information is collected below, in the review of DOWL's application of the Level 2 Screening Criteria.	Comment Noted.	SEALT	PEL Study Team
289	Since the management plan for the Mendenhall Wetlands State Game Refuge was completed in March of 1990, the primary goal has been to protect fish and wildlife: "Manage the refuge to maintain and enhance fish and wildlife populations and their habitat. Minimize the degradation and loss of habitat values due to habitat fragmentation. Recognize cumulative impacts when considering effects of small incremental development and actions affecting refuge resources."	Comment noted. NEPA requires addressing cumulative impacts as part of the impacts analyses.	SEALT	PEL Study Team
290	Not only do anadromous fish species access their natal streams via the Mendenhall wetlands, but resident and migratory birds rely heavily on forage fish in the estuaries. The wetlands provide habitat for salmon (sockeye, coho, chum and pink), Dolly Varden char, and cutthroat trout. It also provides a rearing (and sometimes spawning) ground for eulachon, capelin, herring, sand lance, sculpin, flounder, and stickleback.	Comment noted.	SEALT	PEL Study Team
291	These fish populations support both marine mammals and fish-eating birds including gulls, terns, herons, mergansers, eagles, kingfishers, and others. Salmon in particular (adults, juveniles, and eggs) are food for at least 31 bird species in Southeast Alaska. After they've spawned, their carcasses deposit vital nutrients on the wetlands and render it a highly productive area, also benefiting plants and invertebrates.	Comment noted.	SEALT	PEL Study Team

292	In addition to previously designated anadromous streams that line the boundaries of the Refuge, the Alaska Department of Fish & Game recently nominated 20 streams to the anadromous waters catalog: 13 additions and 7 route corrections (Juneau-Douglas Second Crossing Fish Stream Surveys, ADF&G, Jan 10 2024). These are all based on the presence of juvenile coho salmon. Every crossing alternative would disrupt one or more anadromous fish streams. The Sunny Point alternatives would have the most severe effects, impacting seven or more streams on each route.	Comment noted.	SEALT	PEL Study Team
293	Note also that many of the route corrections are within stream deltas, which are highly variable environments. Stream channels change constantly and their shifting sinuosity creates and maintains habitat. Interrupting natural flow is deleterious to countless fish, invertebrates, and other marine species.	Comment noted.	SEALT	PEL Study Team
294	The impact on fish populations and habitat would extend far beyond Gastineau Channel. The Mendenhall Wetlands complex is the only major stopover in the 335 miles between the Stikine River delta and Yakutat. This is vital for birds on the Pacific Flyway, a migratory path extending thousands of miles from Patagonia to Alaska.	Comment noted.	SEALT	PEL Study Team
295	The salmon reared in the wetlands not only support wildlife populations, but ultimately contribute to the livelihood of Southeast Alaska residents. Nearly 20% of jobs in Southeast Alaska are in fisheries, supporting families and contributing to a thriving seafood industry that distributes worldwide.	Comment noted.	SEALT	PEL Study Team
296	The mammal habitat of the Mendenhall Wetlands has been studied in various ways over the decades since the Mendenhall Wetlands State Game Refuge was established in 1976.	Comment noted.	SEALT	PEL Study Team
297	The 200-acre heart-shaped peatland on Douglas Island, known to some as Hendrickson Point and referred to on SEALT's maps as Peatland Point, contains valuable mammal habitat in addition to numerous species of birds, fish and often-overlooked aquatic insects.	Comment noted.	SEALT	PEL Study Team
298	SEALT owns and stewards two parcels on the eastern side of Hendrickson Point as conservation land due to their strong habitat and wetland values; collectively, these parcels are called the Grummett Wetlands Mitigation Site, established in 2019 and expanded in 2022 to provide permitted offsets for unavoidable impacts to aquatic resources in Southeast Alaska.	Comment noted.	SEALT	PEL Study Team
299	The CBJ Parks & Recreation Department manages the western side of this peninsula as a Conservation Area, designated and set aside for conservation and public access in CBJ's 2008 Comprehensive Plan and again in the 2013 Comprehensive Plan.	Comment noted.	SEALT	PEL Study Team
300	The Mendenhall Wetlands State Game Refuge is mostly off-limits to large mammals such as deer, bear, and wolf due to roads and development serving as barriers to their entry. However, this peninsula offers a rare open corridor for wildlife access.	Comment noted.	SEALT	PEL Study Team

301	Discovery Southeast and the Southeast Alaska Land Trust have documented large mammal uses of the Refuge via this wildlife corridor at Hendrickson Point since 2003. Notably, in the spring and summer, mammal tracks on the tide flats include tracks associated with deer, bear, wolf, marten, mink, and otter - including juveniles. This indicates that mammals are able to safely bring their young to the tidal wetlands to hunt, forage and traverse the Refuge through the Hendrickson Point corridor. While this documentation of mammal use was not part of a formal study, this elemental occurrence was recorded by qualified observers and should be noted for further review within an EIS.	Comment noted.	SEALT	PEL Study Team
302	The “Introduction” starts with the same paragraph as the wetland delineation; there is no mention of eelgrass in the introduction: its presence, ecological and regulatory significance, or delineation is not described.	Agreement with the commentor. This was an editorial mistake in the Introduction paragraph of the Eelgrass Survey report.	SEALT	PEL Study Team
303	While some of the other field survey reports stated that they did not identify or evaluate potential impacts of different alternative crossing sites and could not be used that way, this report’s introduction states that the eelgrass delineation will be used to support evaluation of alternatives. While it states that additional surveys may be needed if the Falls Creek landing site is shifted, it regards the survey as sufficient for evaluating current alignments despite the limited tidal range and timing of the surveys as noted below.	The 2023 Eelgrass Survey report was considered during the survey-level PEL Study to inform scoring in screening of alternatives. It is certainly possible additional eelgrass surveys will be needed to provide adequate and appropriate data for a robust NEPA analysis of proposed alternatives. The Work Plan for the study specifically notes the survey would be conducted at low tide and states: "If the selected alternative has eelgrass present in its alignment, a more thorough eelgrass survey should be conducted prior to Project initiation.	SEALT	PEL Study Team
304	The “Previous Investigation” section mentions the eelgrass map layer from the ShoreZone website, but does not give the survey date for this, only noting it as 2023 in references because it was taken from the current website. While the reference section lists the more recent CBJ area NOAA staff eelgrass mapping/monitoring surveys by NOAA that include parts of the project area, the “Previous Investigation” section does not mention these or the NOAA-mapped eelgrass outside of Entrance Point along Mendenhall Peninsula.	The NOAA-mapped eel grass within the Mendenhall Peninsula is outside of the study area and outside of the scope of the field survey.	SEALT	PEL Study Team
305	A tidal range required or recommended to find or rule out eelgrass in our area should be mentioned in the methods section along with a commitment that surveys at all sites will be conducted at that appropriate tidal level. The results section mentions an unexplained tidal range for planned surveys, but some surveys were conducted outside of this range.	Comment noted. Eelgrass survey was conducted in accordance with the work plan (dated September 2023)	SEALT	PEL Study Team
306	The results table should include the tidal range during each survey period at each site. The tidal range during each survey interval can only be estimated by the time of day noted. For the purpose of this review, a revised results table with the needed tidal information in italics is shown below.	Comment noted.	SEALT	PEL Study Team
307	Since surveys were conducted at tide levels as high as 7 and 15 feet and none below -1, it appears that some of the surveys may have been conducted during tide levels too high to detect lower- or even mid-elevation eelgrass; survey tidal ranges are highlighted for these potentially problematic surveys. It may be that these were conducted in areas lacking non-ponded terrain below these elevations. If so, this should be noted. It should also be noted whether snorkel surveys would be needed to rule out eelgrass in areas that remain ponded at low tide such as the dredged channel at the Sunny Pt. alignment.	Comment noted. The eelgrass field survey was conducted in accordance with the work plan (September 2023). Limitations of the survey are acknowledged in the work plan and report.	SEALT	PEL Study Team

308	While the surveyors were able to find some eelgrass at the ShoreZone-mapped Falls Creek delta eelgrass site, the mapping may be incomplete since that important survey was very short in duration. Surveys appear to have been limited by staff availability as well as the timing of daylight and tides, perhaps as a consequence of the inappropriately brief survey planning and implementation schedule.	Comment noted. Limitations of the survey are acknowledged in the work plan and report.	SEALT	PEL Study Team
309		Acknowledged.	SEALT	PEL Study Team
310	The Falls Creek (Salmon South) map with a surveyed eelgrass polygon is laid over a low quality poorly chosen aerial. Clear low tide imagery for the Falls Creek delta is readily available and should have been used here along with available elevation data from the 2013 LiDAR. The Maps section would be more useful if revised to include the planned traverses and resulting tracks, so covered areas can be depicted with respect to the alignments, topographic elevation, tidal elevation at time of survey, and previous mapping results from ShoreZone, National Marine Fisheries Service (NMFS), and SEALT. This would help to determine if additional surveys may be needed during lower daytime tides than were available during the brief SEALT and PEL fall survey period.	Comment noted.	SEALT	PEL Study Team
311	The SEALT team noted eelgrass presence during fieldwork associated with their fall 2023 tideland habitat mapping and functional assessment at the Falls Creek delta and on both sides of Entrance Point/Fish Creek (SEALT, 2024 (draft)). Georeferenced photographs and tracks or maps thereof, along with more appropriate topographic and orthophoto basemaps are part of the SEALT project and may be requested by reviewing agencies.	Comment noted. During development of the affected environment information for the NEPA analysis, SEALT will be consulted to ensure all available and relevant data are considered.	SEALT	PEL Study Team
312	While additional low elevation surveys in clear channels and delta edges would be appropriate due to time and tide limitations of the fall survey, currently available data suggests that eelgrass may be limited to areas near the western and eastern edges of the Mendenhall Wetlands area where glacial input is moderated by marine and clear freshwater influence.	Comment noted.	SEALT	PEL Study Team
313	In summary, eelgrass does not appear to be a major factor in siting the crossing, particularly in comparison to overall wetland and tideland impacts, although it is present near two alignments and additional documentation during better lowtide/visibility conditions may be needed.	Comment noted.	SEALT	PEL Study Team
314	Eelgrass extends toward the edge of the Mendenhall alignment from Entrance Point although it is not currently mapped within the report. This area could use additional low tide or in-water survey coverage.	Comment noted.	SEALT	PEL Study Team

315	The Salmon Creek alignment is very close to eelgrass beds along the south side of the landfall at the Falls Creek delta. Additional surveys during better conditions may be needed, and design and construction adjustments will be needed to reduce potential impacts.	Comment noted.	SEALT	PEL Study Team
316	Additional low tide or in-water surveys may be needed at the Sunny Point alignment where imagery shows a ponded channel.	Comment noted.	SEALT	PEL Study Team
317	Even with some eelgrass on the Falls Creek delta, the Salmon Creek alternative remains by far the best option to minimize Refuge, salt marsh, and tideland impacts and could be greatly improved by moving the alignment to the south, off the Falls Creek delta and the edge of the Salmon Creek delta.	Comment noted.	SEALT	PEL Study Team
318	DOWL's Bridge Volume Forecast Memo is a puzzling inclusion in the PEL Study materials in that DOWL does not incorporate its results meaningfully into the Level 2 scores	Information from the Bridge Volume Forecast Memo is considered for the Purpose and Need for the project and addresses traffic forecasts for each alternative.	SEALT	PEL Study Team
319	The memo blurs the traffic volume differences between the alternatives by grouping them without explanation, but nevertheless reveals some important facts.	Comment noted.	SEALT	PEL Study Team
320	A Sunny Point East/Sunny Point West/Vanderbilt set of alternatives would divert less traffic (20-30%) from the existing bridge than the combined Twin Lakes/Salmon Creek alternatives (30-40%).	Comment noted.	SEALT	PEL Study Team
321	After constructing a Sunny Point East, Sunny Point West, or Vanderbilt alternative, the average annual daily traffic (AADT) on the existing bridge would return to the current levels (2022-2024) by the year 2040, just 10-12 years after the construction of a second bridge. This is not due to population growth or noteworthy increases in daily bridge traffic; the marginal daily benefits of a second bridge at Sunny Point and Vanderbilt are not illustrated within the memo.	Comment noted.	SEALT	PEL Study Team
322	By contrast, the memo suggests that an alternative at Twin Lakes or Salmon Creek would divert more traffic and reduce future uses of the existing bridge permanently.	Comment noted.	SEALT	PEL Study Team
323	The memo does not explain whether scheduled and required improvements to the existing Douglas Island Bridge are incorporated into the traffic volume forecasts or possible expanded uses of the existing bridge.	Comment noted.	SEALT	PEL Study Team
324	It is unclear whether DOWL has analyzed whether these marginal benefits - for slight convenience more than anything else relating to traffic congestion or safety - justify the severe impacts to the environment and to human uses of the wetlands that would result from a second bridge located at Sunny Point or Vanderbilt.	Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study.	SEALT	PEL Study Team
325	PEL Study Should Be Data- As Well As Process-Driven ● Well-defined and transparent public process ● Coherent and defensible data-based results ● Not meant to circumvent regulatory responsibilities ● Communication to and understanding by stakeholders and technical advisors	Comment noted.	SEALT	PEL Study Team

326	These well-known features of a PEL study have not been present in DOWL's work on the JDNC PEL Study. The PEL Study's surveys were undertaken using federal funds with the apparent goal of contributing significantly to the environmental analysis required under NEPA through the PEL process.	The surveys noted by the commenter (assumed to be the wetland delineation, eelgrass survey, etc.) were conducted to address identified gaps in available information needed for the survey-level PEL study. Additional studies are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	PEL Study Team
327	In general, the PEL process is intended to efficiently identify alternatives, needs, and potential impacts early in the process, and if it proceeds satisfactorily, may be incorporated by reference into the NEPA analysis, potentially limiting the scope of purpose and need analysis and documentation as well as alternatives and impacts considered during NEPA. SEALT does not see merit in incorporating the reports from the PEL Study into NEPA by reference, with the possible exception of the Intertidal Habitat Survey Report.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	PEL Study Team
328	DOWL suggested at its March 7, 2024 Joint Advisory Committee meeting that the advisory committees approved the screening criteria presented in the new Level 2 results. That is not accurate: the advisory committees did not have approval authority, and agency and stakeholder feedback on the screening criteria was not clearly integrated into DOWL's work prior to screening. More importantly, DOWL's use of screening criteria in this study has changed since their presentation to the advisory committees in February 2023. Significant changes to the criteria and measurements are reviewed here.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	PEL Study Team
329	"High Value Wetlands" was removed from the Level 2 Screening despite its use as an indicator for severity of impacts to wetlands in the Preliminary Screening Criteria.	High value wetlands was removed from consideration because a valuation of wetlands did not exist. The PEL study team has completed a wetland delineation and functional assessment providing values of wetlands in the study area. This data has been used to update the Level 2 Screening.	SEALT	PEL Study Team
330	For "Essential Fish Habitat", the measurement included impacts relating to construction activities, not just the final result of construction.	Comment noted.	SEALT	PEL Study Team
331	The score for "Important Migratory Bird Habitat Impacted" would have been determined by the acreage of habitat impacted by construction.	Level 2 scoring was revised to consider all property within the Refuge "important habitat." Impacts to bird habitat reflect acreage of impact within the Refuge as advised by DOT&PF Statewide Environmental Office.	SEALT	PEL Study Team
332	For "Section 4(f)/6(f) Resources Affected", the score would have included the number of resources and distance to them. This previous measurement would aim towards compliance with the ADOT&PF Environmental Procedures Manual's instruction on 4(f)/6(f), whereas the current measure does not.	A U.S. DOT Section 4(f) review would be undertaken during a future NEPA phase. The PEL study team rescored the alternatives with two additional methodologies, including impacts to the Refuge, and validated that the difference in scoring methodology does not substantially alter the outcome.	SEALT	PEL Study Team

333	"Protected Lands Directly Affected" would have included all protected lands categories, not just lands owned by the Southeast Alaska Land Trust. (Even by the extremely narrow definition limiting the criterion to SEALT lands alone, DOWL did not measure/score this correctly.) A more comprehensive filter like the one suggested in the February 2023 screening criteria memo must be applied to this criterion to encompass all types of protected lands managed for public uses and benefits by CBJ, the State of Alaska, SEALT, and others.	Recommendation noted.	SEALT	PEL Study Team
334	"Effect on Visual or Scenic Quality of Surrounding Area" was eliminated in the Level 2 screening, although it remains an Additional Goal within the PEL Study. It is a questionable loss of transparency and analysis to remove criteria in this way without explanation, given the importance of all of the goals named in the study.	To avoid scoring discrepancies, some criteria were dismissed until further into the NEPA process to determine its exact methodology of measurement.	SEALT	PEL Study Team
335	The screening methodology released to the TAC in 2023 did not specify a scoring range of -2 to +2. At the March 7, 2024 Joint Advisory Committee meeting, several agencies and stakeholders flagged this abbreviated range for scoring, and questioned its usefulness.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. The PEL study team has received a number of recommendations on scoring methodologies and acknowledges many variations on scoring exist. The PEL study team rescored the alternatives with two additional methodologies and validated that the difference in scoring methodology does not substantially alter the outcome	SEALT	PEL Study Team
336	We understand, and have been repeatedly reminded by DOWL, that the PEL Study is not designed to analyze whether a No Build alternative is the best choice, but rather which of the Build alternatives have merit for consideration by an EIS.	Comment noted.	SEALT	PEL Study Team
337	However, DOWL inexplicably chose to include a No Build alternative in the Level 2 Screening. For this reason, it is fair to critique how the screening criteria were applied to the No Build scenario. At the March 7, 2024 presentation, DOWL reported that the parameters for scoring No Build were different from the parameters for scoring other alternatives. The scoring range of -2 to 0 means that No Build has no chance within the PEL Study process to score in the same range as the Build alternatives that can score -2 to +2, and is handicapped by default going into NEPA.	The No build alternative would not meet the purpose and need. However, the No Build (i.e., No Action) alternative is required to be equally considered among the other alternatives carried forward through the NEPA analysis, and thus was included in the screening table. As noted by the commentor, the PEL Study was not designed to analyze whether the No Build alternative is the best choice.	SEALT	PEL Study Team
338	Scoring a No Build alternative at 0 for criteria such as "Avoid, minimize, and mitigate negative impacts to the environment" is a disingenuous finding. 0 should not be the maximum score for No Build in the Level 2 Screening.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive).	SEALT	PEL Study Team
339	It has been recommended by numerous advisors to this PEL Study that the criteria considered for screening should be weighted according to their importance. For instance, the impacts to 4(f)/6(f) resources should not be forced into an equivalency with the total right-of-way needed for construction.	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	SEALT	PEL Study Team
340	Wetlands, birds, other wildlife, fish, refuge, and human use impacts are not adequately weighted. The weighting of these criteria in alternative selection must be commensurate with their importance to the siting decision due to both to their value to the community and their very significant regulatory protections.	The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	SEALT	PEL Study Team

341	The scoring for the five Build alternatives had a total range of 5 points, from -2 to +2. The scoring for the No Build alternative had a total range of only 3 points, from -2 to 0. Both ranges are unnecessarily narrow for scoring; this eliminates nuance and hides important details about the severity of impacts for different alternatives.	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office. Weighting categories may introduce a subjective evaluation as different people may find different resources more important. The PEL study team is not aware of an environmental analysis that weights particular categories.	SEALT	PEL Study Team
342	The range of -2 to +2 lumps moderate impacts with severe impacts, blurring the difference between what is truly harmful to the environment and the community and what might be acceptable with appropriate mitigation measures.	Mitigation requirements and measures are not known. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies as they typically determine specific mitigation measures.	SEALT	PEL Study Team
343	Many factors are only rated 0 to -2. If No Build is 0, or 0 impact would be misleading, this leaves only two levels of impact to compare six locations (-1 and -2). For example, the criterion "Avoid, minimize, and mitigate impacts to the environment" scores No Build at 0, and all other alternatives identically at a -2. The Build alternatives would all have negative impacts on the environment, but their impacts differ greatly. It would be more prudent to differentiate between minimal impacts, light impacts, moderate impacts, severe impacts, and a total loss/impact so that the alternatives can be compared accurately. All things considered, constructing a bridge at Sunny Point would be substantially more deleterious to the environment and established uses of the Refuge than constructing a bridge at Salmon Creek, but there is no room within DOWL's current scoring to see that difference.	The score of "0" simply means the ranking is neutral for the screening category. Using a numbered score in this case could imply there are impacts generated (adverse or positive). The Level 2 scoring applied a weight to impacts to resources within the MWSGR. The impacts to the MSWGR resources were considered more substantial than impacts outside the refuge.	SEALT	PEL Study Team
344	In order to reflect the best available information, more granularity should be required in the scoring range. SEALT could support a scoring range of -5 to +5, or a range that uses fractional scores (in 0.25 or 0.50 increments).	The scoring system has been reviewed and approved by the DOT&PF Statewide Environmental Office.	SEALT	PEL Study Team
345	With the possible exception of the Salmon Creek alternative, which may be constructed in such a way as to avoid the most harmful impacts to the Mendenhall Wetlands State Game Refuge and the Marjory and Edgar Huizer Fishing Access Site, all other alternatives are inconsistent with existing approved plans.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
346	Mendenhall Wetlands State Game Refuge Management Plan: The Refuge's Management Plan states that the Refuge was "established by the Alaska Legislature in 1976 to protect natural habitat and game populations, especially waterfowl, as well as to provide recreation." All alternatives crossing through the Refuge are inconsistent with Refuge's Management Plan, which provides guidance on managing the Refuge to achieve this purpose.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
347	USACE Mitigation Plans: The West Sunny Point and East Sunny Point alternatives are inconsistent with the approved USACE mitigation plans, including long-term management plans, in place for the high-functioning estuarine wetland mitigation sites around Sunny Point and on Hendrickson Point.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team

348	2013 CBJ Comprehensive Plan: The alternatives located within the Refuge's boundaries (Mendenhall Peninsula, Sunny Point West, Sunny Point East, and Twin Lakes) are inconsistent with Policy 9.3 of the 2013 CBJ Comprehensive Plan, which states "To preserve as public natural areas those publicly-owned lands and shoreline areas that possess important recreational, scenic, fish and wildlife, and other environmental qualities or are subject to natural hazards."	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
349	2013 CBJ Comprehensive Plan: The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
350	2013 CBJ Comprehensive Plan:The Plan notes in Chapter 9 that "Natural, undeveloped areas…are an essential component of the CBJ's community form and identity. They should be maintained and enhanced." The Mendenhall Wetlands State Game Refuge is the largest and most publicly-visible natural area in Juneau. Construction of transportation infrastructure within the Refuge would be inconsistent with Policy 9.3 of the Comprehensive Plan and significantly damage the visual, cultural, and scenic identity of the community.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
351	2013 CBJ Comprehensive Plan: As its prior iteration in 2008 established, the 2013 Comprehensive Plan continues to designate the CBJ property (Parcel ID 6D1001040010) on the western lobe of Hendrickson Point as a Conservation Area with public access for the wetlands and beach areas around Hendrickson Point. That CBJ property, and the public access parcel from North Douglas Hwy (Parcel ID 6D0901060110), are maintained by CBJ in conservation status.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
352	2013 CBJ Comprehensive Plan: Disturbance and fragmentation and other impacts caused by road construction and conflicting uses adjacent to this area will greatly reduce its recreational, ecological, and conservation values and severely impact its existing uses.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
353	Lemon Creek Area Plan: The Lemon Creek Area Plan notes that throughout the plan's development, the public identified the Refuge as a key resource of the Lemon Creek area for their habitat needs and their viewsheds (p. 55, Lemon Creek Area Plan). The Plan also outlines that access to the Refuge is limited in the Lemon Creek Area and highlights the need for the development of a coastal trail to provide additional access. Alternatives located at the Sunny Point and Vanderbilt locations are inconsistent with this plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team

354	Marjory and Edgar Huizer Fishing Access Site Management Plan: The Marjory and Edgar Huizer Fishing Access Site ("Huizer Site") is managed by SEALT in partnership with ADF&G as an official access point to the Refuge and Falls Creek, primarily for fishing, and secondarily for hunting, recreation, and other customary uses of the Refuge. The Huizer Site is located along the southern edge of the Refuge and the parcel's northeastern shoreline boundary is a part of the greater intertidal estuarine Mendenhall Wetlands complex, and a Salmon Creek alternative would conflict with its Management Plan.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
355	Statutory Warranty Deed for Sunny Point Park #3 Lots 1 & 2: Although it is not a community-level plan, the deed to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2 specifically prohibits the use of that property for a second crossing. It states that SEALT "...may not deed the Property to the City and Borough of Juneau or the State of Alaska or any divisions or departments thereof unless and until: "(i) Applicable federal and state procedures for formal site selection of a North Douglas Crossing have been completed, appeal procedures exhausted, and permits issued for an alternative other than a Sunny Point alternative; and "(ii) [SEALT] is able to secure from the government entity to which the Property is deeded, a Conservation Easement which expressly limits development of the Property to those listed in the Plat notes, restrictions, and easements of record. "Reversionary Interest of Seller: If any government entity commences eminent domain proceedings against the Property described above, or any part thereof, the Property in its entirety shall revert to the Seller's ownership automatically and by operation of law." *There are additional consequences written into the deed for a condemnation* *proceeding which can be provided upon request.*	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
356	Additionally, a prior iteration of the second crossing concept was evaluated in a Sheinberg survey. It ranked impacts to the wetlands as the #1 consideration, with cost as the #2 consideration. In the EIS for this project, the review should include how prior iterations of a second crossing considered, ranked, and recommended alternatives.	Comment noted.	SEALT	PEL Study Team
357	The goal of SEALT's Habitat Mapping and Assessment Project is to assess the functions and values of different areas within the Mendenhall Wetlands according to protocols developed for the region. Functional assessments look at what wetlands do and how they contribute to ecosystem functions, from fish and wildlife habitat to hydrology and human use. With a basic understanding of what they represent, SEALT's assessment scores can offer a valuable and timely perspective on tideland areas potentially affected by the crossing alternatives.	Comment noted. The Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024. The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	PEL Study Team
358	For this project, SEALT engaged Bosworth Botanical Consulting to assess 18 watershedbased areas (Figure 1) covering the entire refuge via the Wetland Ecosystem Protocol for Alaska - Southeast (WESPAK-SE). WESPAK assesses the "functions and values" of the vegetated portion of tidal wetland areas and key features within them.	The SEALT assessment areas were reviewed apart of the wetland delineation report. For easier incorporation, please share shapefiles.	SEALT	PEL Study Team
359	See table 1: WESPAK-SE Protocol - Functions and Values	Comment noted.	SEALT	PEL Study Team
360	See figure 1: SEALT Habitat Mapping and Assessment Project - Assessment Areas	Comment noted.	SEALT	PEL Study Team

361	Since WESPAK-SE focuses on vegetated areas, SEALT is also using the Nearshore Assessment Tool for Alaska - Southeast (NATAK-SE), a complementary assessment tool covering other aspects of tidelands, including mudflats and shoreline buffer characteristics. Both functional assessment tools were developed and are maintained by SEALT in partnership with the USACE, USFWS, CBJ, SEAKFHP, NOAA, and experienced wetland scientists through Adamus Resource Consulting and Bosworth Botanical Consulting.	Comment noted. The use of an additional functional assessment protocol for the PEL Study will be up to the discretion of DOT&PF and CBJ.	SEALT	PEL Study Team
362	Table 2 below summarizes overall WESPAK-SE functional assessment scores for each area. The scores are normalized (transformed to a 0 to 10 scale) to a dataset from other areas around southeast AK.	Comment noted.	SEALT	PEL Study Team
363	As might be expected in a region of steep-sided fjords where well-developed salt marshes are rare, the Refuge's overall tidal wetland function scores are very high. On the mainland side, some refuge areas are literally "off the charts"; overall scores for the Sunny Point (10.98) and Mendenhall Peninsula (10.17) areas under consideration for a second bridge exceed the range of the model's calibration dataset.	Comment noted.	SEALT	PEL Study Team
364	See Table 2: SEALT's Tidal Wetland Functional Assessment for Crossing Areas	Comment noted.	SEALT	PEL Study Team
365	Scores can also be compared by function or functional group (Table 1). For example, the "Waterbird Feeding Habitat" function is "High" across the board. Other sub-scores such as for Anadromous Fish, Organic Nutrient Export, Public Use, and Wetland Sensitivity are also pertinent to a review of potential crossing impacts.	Comment noted.	SEALT	PEL Study Team
366	While overall scores provide a comprehensive way to compare wetlands, they are subject to a weighting scheme. While the standardized weighting built into the WESPAK protocol was carefully chosen, it can be difficult for an overall score to meet all rating needs. Unweighted sub-scores can be more informative for questions focused on particular functions.	Comment noted.	SEALT	PEL Study Team
367	The Mendenhall Peninsula alignment falls within the SEALT project's West River assessment area, the very large and varied salt marsh west of the Mendenhall River along with its streams, ponds, sloughs and riverbank. Most of that vegetated wetland is not crossed by the alignment, although a fringe of salt marsh at the end of Mendenhall Peninsula would be directly affected by fill. The top-scoring West River wetland area contributes greatly to the habitat richness of mudflats and channels at the rivermouth (and beyond) that would be affected by the Mendenhall crossing.	Comment noted.	SEALT	PEL Study Team
368	At Sunny Point, the very high overall score is directly related to the tidal marsh areas that would be filled and impacted by the two alternatives, including the very extensive salt marsh, stream, and channel complex surrounding Sunny Point and extending across the refuge to the channel near the Douglas shore. Since the scores are "area-less" indicators, a size factor could be applied to characterize overall functional impacts. With total impact area considered as well as scores, the Sunny Point alignment's vegetated wetland functional impacts are clearly the most severe among all proposed crossing alternatives, especially effects on bird habitat and human use.	Comment noted.	SEALT	PEL Study Team

369	WESPAK scores for the smaller tidal marsh areas on the Douglas side of the Mendenhall Peninsula and Sunny Point East and West alignments are also in the “High” range. Large fill pads are proposed to cover the marsh and tideflats at both of these Douglas Island landfall sites, including fill over small anadromous streams and their deltas. The recently ADF&G nominated fish streams on the Douglas side of the MP alignment are not shown on DOWL’s project maps.	DOWL used updated data from the Anadromous Waters Catalog (AWC) to complete the Level 2 scoring. Maps associated with older deliverables, such as memos, predate the AWC update.	SEALT	PEL Study Team
370	Functional assessment scores for vegetated tidelands at the Vanderbilt alignment are also very high (9.99), as might be expected given the salt marsh, stream, and channel complexity there. At Twin Lakes and Salmon Creek, overall vegetated wetland function/value scores decrease relative to other alternative crossing locations while remaining in the High range from a regional perspective.	Comment noted.	SEALT	PEL Study Team
371	The many acres of freshwater wetlands within the fill and alignment footprints on Mendenhall Peninsula and Hendrickson Creek were not covered in SEALT’s tideland assessment, although functional assessments for these areas are available from a previous wetland survey (CBJ 2015) by Bosworth Botanical Consulting.	Comment noted.	SEALT	PEL Study Team
372	The Sunny Point East alternative’s impact quantification for the criterion “Protected lands directly affected through SEALT” includes an estimate of 0.006 acres of SEALT land under the final project design.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	PEL Study Team
373	The presentation slides for the JDNC PEL Study Joint Advisory Committee meeting on March 7, 2024, and again at the CBJ Public Works & Facilities Committee on March 11, shows this as 0.0006 acres instead. The Juneau Empire article of March 11, 2024 entitled “Sunny Point route near airport runway gets highest score for second Juneau-Douglas crossing” therefore mistakenly reported that the total impact to SEALT land was 0.0006 acres.	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	PEL Study Team
374	Although this discrepancy between the scoring tables and the public materials on the scoring is concerning and underscores a lack of quality control within the DOWL work products, what is more alarming is that the acreage provided in either case is not a true accounting of the impact (direct fill or functional).	The estimation of 0.006 acres of SEALT land is based on the on the residential area with the buffer.	SEALT	PEL Study Team
375	This kind of false precision in scoring - taking a measurement to a third or fourth decimal place - lends the appearance of rigor to DOWL’s work where very little seems to exist.	Comment noted.	SEALT	PEL Study Team
376	ADOT&PF and its fellow reviewing agencies at the federal and state levels should be skeptical of any of DOWL’s assertions that cannot be verified easily and immediately by reliable data and qualified analysis.	Comment noted.	SEALT	PEL Study Team
377	In this section, SEALT will review the most deleterious effects of a bridge at different crossing locations. Impacts may not be limited to those included in this section; a full impact analysis would have to be conducted following a functional wetlands assessment of the impact sites.	Comment noted. Also, the Functional Assessment was not complete at the time of this submittal on February 15, 2024. To ensure accuracy of the assessment, the functions and values scores were incorporated into the Wetland Report on March 13, 2024.	SEALT	PEL Study Team
378	See Figure 2: Acreage of Impacts by Alternative	Acknowledged.	SEALT	PEL Study Team

379	See Figure 3: Percentage of Habitat Impacts by Alternative	Acknowledged.	SEALT	PEL Study Team
380	See figure 4: Mendenhall Peninsula Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	PEL Study Team
381	See Figure 5: Sunny Point East and West Alternatives Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	PEL Study Team
382	see Figure 6: Vanderbilt Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	PEL Study Team
383	See Figure 7: Twin Lakes Alternative Overlaid on SEALT Habitat Map	Acknowledged.	SEALT	PEL Study Team
384	See Figure 8: Salmon Creek Alternative Overlaid on SEALT Habitat Map	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
385	All of the alternatives except for Salmon Creek would have direct and functional impacts on the wetland mitigation sites owned by SEALT around the Mendenhall Wetlands State Game Refuge. The type, extent, and severity of impacts would vary depending on the design of the alternative (embankment fill vs. pilings at different locations), the distance between the alternative and the SEALT mitigation site, and the freshwater and saltwater influences that may change as a result of the alternative.	Comment noted.	SEALT	PEL Study Team
386	It is important to note that the SEALT conservation lands around the Refuge were selected because of their immense productivity as wetlands and habitat, and represented a unique selection of special aquatic sites of interest to SEALT, the USACE, and partners at other agencies. The hydrologic and habitat connectivity of these lands, managed together, exemplify the tidal wetlands that make coastal Alaska so important for fish, birds, wildlife, and the communities that rely upon those resources.	Comment noted.	SEALT	PEL Study Team
387	The Sunny Point East alternative would severely impact the SEALT properties called Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least one of these conservation properties would occur if a Sunny Point East alternative is selected. All four of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including for the Juneau airport's most recent expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
388	The Sunny Point West alternative would severely impact the SEALT properties called the Honsinger Wetlands, King Easement, Branta Lot 2, Sherry Lot 2, Sherry Lot 3, Hinz II Lot 1B, Sunny Point Park #3 Lot 1, Sunny Point Park #3 Lot 2, and two properties on Douglas Island called the Grummett Wetlands and Tract B-3. Direct fill of at least three of these conservation properties would occur if a Sunny Point West alternative is selected. All ten of these parcels are mitigation sites that provide compensatory mitigation for unavoidable impacts to aquatic resources in SEALT's service area, including the Juneau airport's expansion in 2009. These mitigation sites are legally protected, and violations to the terms of their protection are enforceable by the USACE as well as SEALT.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team

389	The Vanderbilt Alternative would impact the overall function of the wetlands complex, breaking the connection between saltwater and freshwater wetlands along its alignment and creating shading, vegetation loss, and habitat disruption for a variety of key species. SEALT would expect indirect but measurable impacts to the Grummett Wetlands and Tract B-3 on Douglas Island, and to Sunny Point Park #3 Lot 1 and Sunny Point Park #3 Lot 2.	Comment noted.	SEALT	PEL Study Team
390	The Salmon Creek alternative would severely impact the SEALT property on Douglas Island called the Marjory and Edgar Huizer Fishing Access Site. The Huizer Site is managed primarily for fishing access, and also for hunting, bird watching, wildlife viewing, and recreation. It is a protected area, public access point, and scenic viewpoint with stairs, interpretive signs, hunting/fishing regulation signs, and a memorial bench overlooking the Refuge.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
391	The Mendenhall Peninsula alternative would severely impact the SEALT properties along the eastern side of Mendenhall Peninsula, including Eagles View Lot 1B, Gandercall Lot 4, Gandercall Lot 3, Great Horned Owl Lot 2, Grey Goose Lot 2, Morning Meadow Lot 3, Morning Meadow Lot 4, Eagles Reach Lot 2, Moon Meadow Lot 2, Lazy G Acres Lot 2, HAKALA Lot 2, and Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
392	SEALT owns the aforementioned conservation properties with the exception of Wigeon Ponds, which is owned by the State of Alaska and under a Deed Restriction held for enforcement by SEALT, which states that the property is conserved "...to permanently protect the natural habitat and game populations in the Mendenhall River watershed and estuarine complex." All of the SEALT lands along the Mendenhall Peninsula are legally protected as mitigation sites, and violations to the terms of their protection are enforceable by the USACE as well as SEALT, and by the State of Alaska for Wigeon Ponds.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
393	All build alternatives impact a portion of the Mendenhall Wetlands Important Bird Area. The choices are therefore between impacting higher and highest bird habitat use sites. Even within this area, you will see below that the crossing alternatives focus on most of the refuge's documented bird concentration areas. This is not surprising since the alternative crossing sites are only located at stream mouths and/or areas of expansive salt marsh. The alternatives also in effect "target" most of the refuge's access trails (Figure 1). These are public or otherwise protected access corridors with trails used by hunters, birders, and hikers; not surprisingly, these are also focused on deltas and expansive marsh.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
394	Even without site-specific bird data, a planning team might easily have predicted that delta and marsh areas would be the most important for bird habitat and human use. If quality planning was done to avoid and minimize damage to key resources and uses, as required by law, one must ask why these alternatives were the only sites evaluated for crossings.	Comment noted.	SEALT	PEL Study Team

395	It has been clear from project conception that the primary regulatory and planning criterion on this project comes from state and federal guidance to avoid and minimize impacts to refuge habitat and uses. It is also clear from previous analyses that the Juneau public considers protecting refuge habitat the key siting criterion (see Sheinberg consultant poll report). The PEL process is therefore fundamentally and deeply flawed.	Comment noted. Public Interest Review is integral to the NEPA process.	SEALT	PEL Study Team
396	The PEL Study's bird habitat ratings are not credible, but more importantly, the array of alternatives only includes higher-impact sites. While it may be more convenient from an engineering standpoint to anchor spans or other elevated structures at stream deltas, or to use designated public access or stream protection corridors, other sites could be explored and evaluated in order to truly minimize impacts. Importantly, neither a PEL Study nor an EIS is intended to consider convenience above impacts to regulated resources.	Comment noted.	SEALT	PEL Study Team
397	The PEL Study process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. Fortunately, bird and habitat data are available for the refuge overall and for specific areas within it, and ratings, weighting, and alignments can be adjusted accordingly.	Comment noted. All publicly available applicable and relevant information would be considered and incorporated as appropriate during a future NEPA process.	SEALT	PEL Study Team
398	The Mendenhall Wetlands State Game Refuge is widely acknowledged to be a key migratory shorebird and waterfowl stopover location in the region (Armstrong et al. 2004). The Alaska Shorebird Conservation Plan highlights the importance of the Mendenhall Wetlands as a "key migratory stopover" and stresses its vulnerability to cumulative impacts. The wetlands host 16 of the state's 17 greatest conservation need shorebird species as well as most of the region's stewardship species. For an overview of wildlife use of the refuge area, we refer DOWL to the refuge management plan and The Mendenhall Wetlands: A Globally Recognized Important Bird Area (Armstrong et al. 2004). The Wetlands received this Important Bird Area designation because its stream mouths, salt marsh, deltas, and mud flats are used for migratory stopover by a significant portion of the global population of a number of species.	Current land use, including protected lands status, will be determined and impacts analyzed in detail for each alternative during the NEPA process.	SEALT	PEL Study Team
399	The wetlands host thousands of Western Sandpipers, Ruddy Turnstones, and Surfbirds at a time, and large numbers of Black-bellied Plovers, Black Turnstones, Greater and Lesser Yellowlegs, Dunlin, Rock Sandpipers (C. p. tschuktschorum), Least, Semipalmated and Pectoral Sandpipers, and Long- and Short-billed Dowitchers. A popular hunting location, the Refuge is used during migration by large numbers of waterfowl, including geese, dabblers, and sea ducks. It also provides winter habitat for hundreds of Mallards and Vancouver Canada Geese as well as American Wigeon, and several shorebird species.	Comment noted.	SEALT	PEL Study Team
400	The following review of bird habitat use for each crossing alternative on the Mendenhall Wetlands draws primarily on the Armstrong et al. 2004 Bird Hotspots study report; we also refer to the Cornell Lab of Ornithology online eBird database and other observations where survey coverage is lacking or incomplete, as well as bird use of similar areas where observations are sparse.	Comment noted.	SEALT	PEL Study Team

401	It is important to understand the strengths and limitations of the Hotspots study. The survey method was very good for waterfowl and shorebirds concentrated at the water's edge at low tide, but was not designed for complete coverage of passerine and raptor species using high marsh, or for dispersed use of exposed low marsh, shorelines and adjacent meadows. Observations were focused on the more accessible and low tide areas and did not include all of Falls Creek, or cover Hendrickson Creek and Hendrickson Point or the south side of the refuge to the west. Coverage was incomplete at other points, such as at Sunny Pt, 5 mile N Douglas, and parts of Twin Lakes.	Comment noted.	SEALT	PEL Study Team
402	For the Hotspots study, sites were visited only during the daytime low tide interval; high tide and high marsh uses were not as completely documented, including year-round and seasonally important bathing, resting, and foraging areas. Other methods are needed for good coverage of other refuge migrants such as Mountain Bluebird, Northern Shrike, and large flocks of American Pipit, Lapland Longspur, and Savannah Sparrow, as well as raptors such as Northern Harrier, Short-eared Owl, Kestrel, and Merlin.	Comment noted.	SEALT	PEL Study Team
403	eBird data also has limitations due to access and birder activity. The eBird database stewarded by the Cornell Laboratory of Ornithology hosts birder checklists submitted to its online database and reviewed by regional coordinators. Birder activity is focused on the rivermouth, East and West Mendenhall River flats, Fish Creek, Mendenhall Peninsula, and the dike trail, but there are limited observations in other Refuge locations as well. In querying eBird for use in our wetland assessments, we found that with a few exceptions, where coverage of both sources is good, eBird data generally agree with the older Hotspots findings, although density of data is of course related to birder activity and access.	Comment noted.	SEALT	PEL Study Team
404	"Hotspots" authors Robert Armstrong, Richard Carstensen, and Mary Willson still reside in Juneau and can provide additional context for and interpretation of the Hotspots report and data if needed. The 2002 and 2003 Mendenhall wetlands bird surveys were contracted by USFWS (Michelle Kissling) for comparison with a survey by USFWS in the 1980s (Cain et al., 1989) and published by the Juneau Audubon Society and Taku Conservation Society. The data for the 18 surveys at 42 sites are available in GIS form, along with additional observations from a variety of sources compiled for the study. Survey data can be referenced to polygons representing surveyed areas covering most of the refuge.	Comment noted.	SEALT	PEL Study Team

405	The Salmon Creek alignment starts at the southern edge of the very extensive Salmon Creek delta, an official ADF&G refuge access point and popular option for near-town duck hunting and birding. Hotspots survey pt s01 covers the Salmon Creek delta and vicinity, with its extensive mussel/barnacle/rockweed beds and mudflats and is noted as one of only four overall “first tier” hotspots on the Mendenhall State Game Refuge. For this analysis, the “bird count” incorporates 18 full surveys at each of the 42 primary survey sites from March 2002 to May 2003 (Armstrong, 2004, p 5). Sites with a sum of seasonal means over 1000 birds were designated as “first tier hotspots.” The Hotspots report highlights the site as an important resting and feeding area for gulls, ducks, and shorebirds, including wintering use, with up to 200 Dunlin observed in winter and spring.	Comment noted.	SEALT	PEL Study Team
406	Salmon Creek is also a top seasonal hotspot fall through spring for dabbling ducks, with about 300 Mallards often observed feeding there. In the fall, it is also a hotspot for gulls due to salmon returns to the nearby DIPAC hatchery; observations include 1000 Shortbilled, 700 Glaucous-winged, 500 Bonaparte’s, and 100 Herring Gulls in August 2003. Returning salmon also bring in over a dozen Bald Eagles at once. Large numbers of sea ducks have also been observed staging in Gastineau Channel and feeding on the deltaedge mussel beds, including 600 Surf and White-winged Scoters off Salmon Creek in May of 2003 (Armstrong, 2004 p 22).	Comment noted.	SEALT	PEL Study Team
407	Within the Salmon Creek alignment on the Douglas side, Falls Creek has formed a delta that is smaller but similar in character to that of Salmon Creek, with a small salt marsh and extensive mudflat and rockweed/barnacle/mussel habitat regularly used by a variety of bird species, including Great Blue Heron, Barrow’s Golden-eye, Green-winged Teal, and Mallard. It also has patches of eelgrass along its eastern edge. Shorebirds, gulls, and waterfowl move between the two deltas at low tide separated by a narrow channel, making it functionally one larger habitat (SEALT 2024).	Comment noted.	SEALT	PEL Study Team
408	Important bird habitat will be affected on both the mainland and Douglas side of the Salmon Creek alignment. Fill, construction, shading, and disturbance would degrade habitat on the center of the Falls Creek delta. The current alignment is shown at the eastern edge of the Salmon Ck delta, which reduces the wetland and intertidal footprint there, although impact to birds, habitat, and human use at the Salmon Creek delta from the crossing structure and approach lanes would remain.	Comment noted.	SEALT	PEL Study Team

409	The Twin Lakes site was visited periodically in the Hotspots study but some portions did not receive the full complement of surveys. Armstrong et al. describe Twin Lakes/Vanderbilt marsh (t02 and t04) as an important feeding and “refuge” area for SEALT Comments - JDNC PEL Study Level 2 Screening 44 Mallards and scaup during duck-hunting season. Up to 100 scaup were observed in the open waters of Twin Lakes and 150 Mallards in nearby Vanderbilt marsh. Trumpeter Swans also use both habitats. The marsh area is regularly used by Great Blue Herons and Redwinged Blackbirds. Less common species such as American Coot, Hooded Mergansers are also regularly seen in the Twin Lakes. Ring-necked Ducks, Canvasbacks, and Ruddy Duck are also seen there (Armstrong, 2004). For its richness of unusual species and use by flocks for resting and foraging, this area is considered a “nearby hotspot” in the Hotspots report (Armstrong et al., 2004, p 34).	Comment noted	SEALT	PEL Study Team
410	The Douglas Island landfall for the Twin Lakes crossing crosses the western third of the Neilson Creek delta, Hotspots survey site e02. Much of the upper delta of Neilson Creek has been filled for use as a heliport, formerly ERA Helicopters, now Northstar Trekking. The remaining low marsh and the stream channels, rockweed/mussel beds, mudflats, and bars provide extensive and varied intertidal habitat. The Neilson Creek area is similar in character to Salmon Creek but somewhat smaller and less enriched by hatchery fish. The Neilson delta area ranks as one of six “second tier hotspots” and as a top “seasonal hotspot” in spring and fall for use by large numbers of waterfowl and gulls, including observations of up to 1000 Surf Scoters , 200 Mallards, and 500 Short-billed Gulls (Armstrong et al. 2004, pp 5, 25). Smaller groups of other species are also common at Neilson Creek, including American Wigeon, Bufflehead, Green-winged Teal, and Northern Shoveler. The Neilson Creek delta could be considered virtually continuous with a similar delta formation to the north outboard of Twin Lakes; the two are separated at low tide by only a narrow channel so can therefore be considered a functional habitat unit.	Comment noted.	SEALT	PEL Study Team

411	The bird concentration area at the extensive Neilson Creek delta, and the fresh water and unusual species at Twin Lakes and Vanderbilt marsh, provide important migratory bird habitat that would be affected by a crossing at this location. The tideflat/delta area along Egan hosts tideflats with some mussel beds used by shorebirds and waterfowl; a large portion of tidelands along the highway would be affected by fill or pilings to create an interchange and the delta hotspot habitat would be reduced, affected by construction, and degraded by disturbance, lighting, predator perches, etc.	Comment noted.	SEALT	PEL Study Team
412	The Vanderbilt alignment crosses a productive and dynamic part of the refuge where glacially-influenced water from Lemon Creek mixes with fresh water from nearby streams and saltwater from Gastineau channel. The Twin and Vanderbilt alignment footprints overlap at the western part of Twin Lakes and at Vanderbilt (or “Pioneer”) marsh, noted SEALT Comments - JDNC PEL Study Level 2 Screening 45 above for use by dabbling ducks and Red-winged Blackbirds. Both are considered “nearby hotspots”, where fresh water aquatic vegetation beds and lack of hunting result in a foraging and resting area for waterfowl, including several less common species such as American Coot, Hooded Merganser, and Trumpeter Swan (Armstrong et al., 2004, p 34).	Comment noted.	SEALT	PEL Study Team
413	The Vanderbilt impact area includes extensive salt marsh on both sides of Egan Expressway, the freshwater wetlands of Vanderbilt (“Pioneer”) marsh, new and old channels and distributaries of Vanderbilt Creek, a distributary channel of Lemon Creek, and a large, tidal “island” on the inner Lemon Creek channel. Isolated, yet in clear view of the highway, this salt marsh and mudflat provides key resting and foraging habitat, acting seasonally as a “refuge within the refuge” for large flocks of geese and wintering shorebirds and shorebirds (SEALT, 2024). One thousand Rock Sandpipers were observed at Vanderbilt estuary (L04) in May 2003 (Armstrong et al., 2004 p 8). Both sides of the channel see some use for duck hunting, and there is a refuge access trail where the alignment reaches the shore of Douglas Island at the 5 Mile Creek delta. On the mainland side, refuge access is complicated by Egan and is particularly difficult for the tidal “island” (SEALT).	Comment noted.	SEALT	PEL Study Team

414	The 5-mile site (e01) did not receive the full series of Hotspot surveys and the area sees little birding activity, so observations are limited. Nearby homeowners have confirmed, however, that the 5-mile to Hendrickson Creek tideflats and channels are consistently used by hundreds of resident and migrant Canada Geese and Mallards for bathing, resting, and access to foraging on the isolated mid-channel salt marsh island; this use was further documented during the SEALT wetland assessment and mapping project (M. Stanley, K. Sorenson, personal communication and SEALT (draft), 2024). Great Blue Heron, flocks of wintering Killdeer, and migrating Sandhill Crane have also been observed at this littledisturbed and out-of-the-way corner of the refuge (L. Lamm, eBird).	Comment noted.	SEALT	PEL Study Team
415	The Vanderbilt alignment would affect a currently isolated fall haven and wintering area for Canada Goose and Mallard. Significant salt marsh habitat would be lost, degraded, and fragmented, including a large and growing Lyngbye sedge area, and the area's function as "refuge within the refuge" would be compromised. Mudflat and delta habitats providing seasonally important waterfowl and shorebird habitat would also be affected by the crossing. The 5-mile Creek refuge access trail and delta are within the fill footprint.	Comment noted.	SEALT	PEL Study Team
416	The Level 2 Screening bird habitat rating of the Sunny Point East alignment is "0" - a serious error. The area surrounding Sunny Point did not receive the full series of Hotspot surveys, but the Hotspots database, eBird, and other observations confirm consistent use by large numbers of Canada Geese (100 to 300), Mallards (up to 500), and other species, including American Wigeon and Trumpeter Swan (Amstrong et al., 2004, eBird (including Hausler, MacDonald, and others)).	The revised scoring considers all of the MWSGR as important bird habitat. The scoring has been revised to reflect impacts to important bird habitat inside the refuge.	SEALT	PEL Study Team
417	The area has a uniquely rich array of habitats, from large expanses of Lyngbye sedge and succulent low marsh to high marsh grasses, streams, sloughs, channels, and ponds. Along with the area south and east of the dike trail, the river mouth, and to a lesser extent Vanderbilt/Lemon area, Sunny Point regularly hosts a large portion of the refuge's winter resident Canada Goose population that nests throughout northern southeast Alaska.	Comment noted.	SEALT	PEL Study Team

418	The channels and sloughs provide migratory stopover habitat for shorebirds, diving ducks, and dabbling ducks. Wet and brackish high marsh along the Sunny Point and Egan-adjacent shoreline, a rare habitat type on the Refuge, attracts concentrated seasonal use by Canada Geese, Wilson's Snipe, and other species. Undisturbed forest/meadow shorelines, and shrubby transitional areas provide additional foraging and cover for nesting and resting. The marsh just beyond Sunny Point, with its ponds, channels, and islands, is a major waterfowl concentration area and nexus for movement between resting and foraging areas during changing tides.	Comment noted.	SEALT	PEL Study Team
419	In contrast, the Douglas side of Sunny Point alignments and their Hendrickson Point landfall were not covered in the Hotspots survey and eBird data there is sparse, but bird habitat importance can be inferred from the available habitat and from use of similar nearby areas. The central portion of the alignment near the tidal divide includes tidal channels, salt marsh and vegetated spoil islands, providing foraging and resting areas for waterfowl and nesting habitat for a variety of species. On the refuge, salt marsh and adjacent uplifted meadows such as these are also used by migrating raptors such as Shorteared Owl, Northern Harrier, Kestrel, and Merlin. Migratory flocks of songbirds such as Snow Bunting, Savannah Sparrow, Lapland Longspur, and American Pipit stop to re-fuel in similarly extensive refuge-heart tidelands just to the west.	Comment noted.	SEALT	PEL Study Team
420	At the landfall on Hendrickson Point, the crossing passes through a narrow band of forest to a long stretch of scrub-shrub and forested wetlands within a large open peatland, parts of which are in protected status (CBJ natural area and SEALT conservation property). The alignment footprint crosses the two small streams running through this partly forested wetland strip. Such wetlands provide habitat for many of the songbirds in the region, particularly Lincoln's Sparrow, Dark-eyed Junco, Wilson's and Orange-crowned Warblers, and Hermit Thrush. Nesting Greater Yellowlegs have been observed in the peatland at Hendrickson Point, a disturbance-sensitive species and uncommon breeder in large, ponded peatlands in the Juneau area (Bosworth, 2015).	Comment noted.	SEALT	PEL Study Team
421	With well-documented and consistent wintering use by hundreds of Vancouver Canada Geese and Mallards and seasonal waterfowl and passerine concentrations, the Sunny Point alignment area is a hotspot of bird activity on the refuge. This alternative would affect a very long stretch of salt marsh, a particularly productive and important habitat for birds and other wildlife on the refuge. The Sunny routes would both bisect the refuge, disrupting movement and foraging for a large portion of a valued and disturbance-sensitive winter resident waterfowl population. Impacts to rare wet high marsh, isolated island, and shoreline-adjacent peatland habitat would also be substantial.	Comment noted.	SEALT	PEL Study Team

422	The Mendenhall Peninsula crossing alignment runs through r05, the Western Mudflats bird hotspot at the rivermouth tideflats just south of the Mendenhall Peninsula, and continues through the adjacent areas r06 and r08. These are noted as 3 of the 4 “first tier hotspots” in the Hotspots study (Amstrong et al., 2004). Designated as “first tier” for their heavy bird use, these represent a broad and continuous swath of important migratory bird habitat across the Mendenhall River mouth from Fritz Cove to the channel entrance at Fish Creek. These survey areas stand out in a data set from 18 low tide surveys across 14 months among the 42 systematic survey areas arrayed across accessible portions of the Mendenhall Wetlands State Game Refuge. The totals, defined as a sum of seasonal means of bird numbers, were over 1000 for each of these potentially affected bird hotspots.	Comment noted.	SEALT	PEL Study Team
423	Clearly, the PEL bird habitat impact rating of “zero” for the proposed Mendenhall Peninsula crossing alternative is grossly in error. Criteria should be corrected and bird habitat impact ratings should be changed. Somehow, potential impacts to the most concentrated and extensive seasonal and year-round migratory bird habitat on the refuge were omitted from the most important piece of the PEL impact quantification and rating matrix, undermining the credibility of the entire ratings process. While impacts could be reduced by high bridge span, impacts to habitat and bird use due to supporting structures and fill will remain.	The revised scoring considers all of the MWSGR as important bird habitat. The scoring has been revised to reflect impacts to important bird habitat inside the refuge.	SEALT	PEL Study Team
424	It is not surprising that the Hotspots authors regard survey site r05, the mouth of Mendenhall River, as the “top hotspot” and “probably among the most important feeding habitat for ducks and shorebirds” on the Mendenhall wetlands, citing observations of thousands of Western Sandpipers and hundreds of Surfbirds, Ruddy Turnstones, Semipalmated Sandpipers, and Dunlin. The rivermouth habitat includes sand, mud, barnacle/mussel/rockweed beds, algal mat, and a mix of fresh, glacial, and marine waters (Armstrong, 2004, p 17) The authors also counted large flocks of waterfowl at the rivermouth: 800 Northern Shovelers, 350 Mallards , and 300 American Wigeon. In addition, they note that the area is known as the best place to find less common and highconservation- concern shorebird species, including American and Pacific Golden-Plover, Whimbrel, Red Knot, Baird’s Sandpiper, and Hudsonian, Bar-tailed, and Marbled Godwits.	Comment noted.	SEALT	PEL Study Team
425	The adjacent Fritz Cove hotspot, r06, is also highlighted in the Hotspots report as an important feeding and staging area for sea ducks and waterbirds, noting seasonal concentrations of up to 3-4,000 surf and 600 white-winged scoters and observations of many other species, including sea ducks (Bufflehead, Barrow’s and Common Goldeneye, scaup, Long-tailed Duck), Marbled Murrelet, Horned and Red-necked Grebes, and Redbreasted Mergansers (Armstrong, 2004, p 18). Birds in this area move up the river at high tide, so it has a “floating boundary.”	Comment noted.	SEALT	PEL Study Team
426	To the west and south, at r08 (western mudflats), the largest seasonal means were during the winter, with additional heavy use by a wide variety of species in spring and fall. Bald Eagles (up to 80 observed), gulls, crows, and ravens feed here on burrowing Pacific Sand Lance. R08 is also noted as a top hotspot for the summer and fall seasons (Armstrong, 2004, pp 8-9, 19).	Comment noted.	SEALT	PEL Study Team

427	To the south, the Mendenhall Peninsula alignment transits near the outer portions of the Fish Creek estuary (f08) and through the Western Channel (f09), both noted as “second tier” hotspots of bird activity. The outer Fish Creek estuary hosted a sum of seasonal means just under 1000 (so virtually “top tier”), including heavy migration and winter use, similar and on par with the Western Mudflats just to the north. Similar to the Mendenhall River mouth, the channel and bars west of entrance point (f09) also hosted large numbers during spring and winter (Armstrong et al., 2004, p 6 & 7).	Comment noted.	SEALT	PEL Study Team
428	On the approach to north Douglas, the alignment also passes through the center of survey area f06, noted as a “top winter season hotspot” with heavy use by dabbling ducks (Armstrong et al., 2004, p 6). Large flocks of waterfowl are observed in this area seasonally, including 500 American Wigeon and over a hundred Mallard recently observed resting and feeding on the shoreline, tidal flats and shallows near the 9 mile refuge access trail. Grebes, loons, and thousands of scoters have been recorded here and further offshore along Entrance Point and in Fritz Cove. (eBird and R. Carstensen, personal comm., fall 2023)	Comment noted.	SEALT	PEL Study Team
429	Canada Geese present the largest bird strike hazard to aircraft of any bird species in the Juneau area. The habitat for Canada Geese on the Refuge has shifted with development pressures from the airport expansion and Bicknell construction near Honsinger Pond. Further reductions or constrictions to habitat for these large birds by construction of a second bridge at Mendenhall Peninsula, Sunny Point East, Sunny Point West, or Vanderbilt could present new aviation hazards for the Juneau airport as birds are forced into concentrations, startled into flight by light/noise/vibration/visual stimuli, and have less maneuverability to avoid aircraft strikes.	Comment noted.	SEALT	PEL Study Team
430	Unless we missed a notation in the Level 2 impact quantification that shows their calculations demonstrating otherwise, DOWL attributed “impervious surfaces added” to the Juneau terminus, not the full Douglas terminus, of each alternative. This is most evident when DOWL asserts the differences between Sunny Point West and Sunny Point East, but only account for some impervious surfaces added to the Juneau terminus.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including the Juneau and Douglas terminus of each alternative.	SEALT	PEL Study Team
431	Both Sunny Point West and Sunny Point East would add a tremendous area of impervious surface across Hendrickson Point, which is a radial wetland lobe and arguably a 4(f) resource due to its status as a CBJ Conservation Area, but that end of the fill is not counted in DOWL's acreage for that criterion (or others). The preliminary information available from DOWL for the Douglas terminus for Sunny Point West and Sunny Point East indicates 100% fill once the abutment reaches Hendrickson Point.	The quantities for criteria Impervious Surfaces Added includes the entire footprint including Hendrickson Point.	SEALT	PEL Study Team
432	DOWL included a category and criterion in Level 2 Screening called “Level of public support”. In the Impact Table, the alternatives are scored using different factors: a percentage of support for No Build, and numbers of respondents who supported the Build alternatives. This criterion may not be appropriate for use in Level 2 Screening, or may require significant validation in order to be used for the following reasons:	Comment noted.	SEALT	PEL Study Team

433	Comparing unequal values (percentages and tallies) does not lead to a reliable finding, and needs to be corrected.	Comment noted.	SEALT	PEL Study Team
434	From what DOWL shared at the March 7, 2024 Joint Advisory Committee meeting, the Level 2 Impact Table refers to comments received during a period of public input a year earlier when important factors - including the presence of resources like the Mendenhall Wetlands State Game Refuge in the study area - were not shared with the public in maps and materials published by DOWL.	The data is based on a survey conducted in 2022 before any field surveys were conducted to gain interest between the build and no build alternatives. The survey asked between build alternatives which was preferred.	SEALT	PEL Study Team
435	In March 2, 2023 remarks to the CBJ Public Works & Facilities Committee, DOWL reported that in order to separate support for a second crossing from opposition to a second crossing, the commenters who selected No Build as well as one or more Build alternatives were not considered to be “No Build” supporters. However, commenters who selected more than one Build alternative were counted in both alternatives’ level of support. If this logic was carried forward into the Level 2 Screening, the criterion is compromised.	The survey asked for a selection between build and no build. A second question was asked to select between build alternatives. No repsondents were double counted.	SEALT	PEL Study Team
436	It is unclear that the “level of public support” is a valid criterion to evaluate a costly/ impactful project, as popularity is not a common filter for transportation projects.	Public interest review is an integral part of the planning process.	SEALT	PEL Study Team
437	DOWL must either provide a credible measurement of public support that reflects the current alternatives and the possible impacts, as well as a rationale for considering public support in screening, or discard this criterion.	Comment noted.	SEALT	PEL Study Team
438	DOWL has estimated construction and maintenance costs for the alternatives remaining as of March 2024. Advisory committee members asked the following questions, and SEALT is interested in gaining a better understanding of DOWL’s estimates.	Comment noted.	SEALT	PEL Study Team
439	1. Did these estimates consider repairs to the existing bridge? 2. How will maintenance change for existing roads on the mainland and Douglas Island? 3. Are improvements that are required by this project for existing roads and transportation infrastructure included in these estimates? 4. Did the estimates consider additional lanes for a new bridge as part of this? 5. How will a second bridge’s construction and maintenance impact the maintenance of the existing bridge over the long term?	1. No 2. Over time, there will be slight changes in how pavement deteriorates based on changes in travel patterns and the second bridge requires additional maintenance costs that do not exist today. 3. Improvements to the existing roads as required to build the initial infrastructure are included in the estimates. 4. No, expansion of the existing bridge was dismissed as an alternative as part of the Level 1 screening 5. A second bridge will slow extend the life of the existing bridge, reduce maintenance costs for the existing bridge, and provide an alternative crossing when the existing bridge is in need of major repairs or reconstruction.	SEALT	PEL Study Team
440	Regardless of the construction and maintenance costs, it is doubtful that the estimates include the environmental damages and mitigation that would be required for each alternative, particularly those that would impact 4(f)/6(f) resources and/or mitigation sites. At minimum, the impacts that we have noted above for the Sunny Point West alternative are certainly not included in DOWL’s estimates, as they did not indicate an understanding of those impacts in either the Level 1 or Level 2 scoring.	Mitigation requirements and costs are not known. Further review of alternatives and impacts would be conducted during a future NEPA evaluation and is outside the scope of this PEL Study. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	PEL Study Team

441	Impacting the SEALT conservation lands that are managed as mitigation sites for the Juneau airport would require re-permitting for the airport's expansion for which they were originally preserved in 2009, and then permitting and mitigation for the crossing at that location. This is not simply "double" mitigation in terms of difficulty, timing, or expense.	Comment noted. The airport based alternative did not move through the alternatives screening process.	SEALT	PEL Study Team
442	Impacts to existing mitigation sites would require an additional 6-18 months of negotiation and Interagency Review Team consultations to ensure that the re-permitting of active permits, new permitting for this second bridge, and the new mitigation selected to fulfill all of the permits meet the standards of the U. S. Army Corps of Engineers, the Southeast Alaska Land Trust, and agencies with jurisdiction and authority in the permitting process.	Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	PEL Study Team
443	The question of mitigation has loomed large for SEALT during this process. SEALT operates the longest-standing compensatory mitigation program in the state of Alaska, having provided offsets to unavoidable impacts to aquatic resources to permittees like ADOT&PF and CBJ since 1998. Several of the properties that would be impacted by the proposed alternatives are SEALT mitigation sites.	Comment noted.	SEALT	PEL Study Team
444	As noted in the introduction, SEALT asked DOWL repeatedly for information on how DOWL would approach mitigation for a project that would likely require the most significant wetland mitigation of any project ever completed in the Juneau area, including planning, budgeting, IRT coordination, and permitting. No information has been provided, but based on the conversations where these questions were raised, it is unlikely that DOWL has adequately estimated the costs and requirements for mitigation.	Mitigation requirements are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	PEL Study Team
445	SEALT's impression that DOWL has not analyzed costs or mitigation thoroughly is reinforced by the fact that, at the March 7, 2024 Joint Advisory Committee meeting, DOWL called the part of their cost estimates that includes mitigation the "fudge factor". Using cost as a criterion that is reportedly inclusive of mitigation (rather than assigning a separate criterion) in screening without providing information about how estimates are reached - to the advisory committees or the public - does not reflect a sound process.	Mitigation requirements and costs are not known this early in the process. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	PEL Study Team
446	While there are four total mitigation sponsors in Southeast Alaska now, SEALT remains the only provider of compensatory mitigation that can specifically offset impacts to tidal wetlands in this service area. A second bridge at any of the locations covered by the alternatives within this PEL Study would require offsets for impacts to tidal wetlands. Because of this, SEALT would be the mitigation sponsor to fulfill the special conditions of a Department of the Army USACE permit to impact tidal wetlands within the study area.	Comment noted.	SEALT	PEL Study Team

447	However, there are three important considerations relating to cost and mitigation that SEALT urges the PEL Study team to include in the final PEL Study report: 1. Appropriate in-kind offsets for tidal wetland impacts are limited in Southeast Alaska, and almost nonexistent in the Juneau area at the scale that would be required by a second crossing project through the Mendenhall Wetlands. 2. Adequately mitigating environmental impacts for all six of the proposed Build alternatives will be extremely costly. 3. Mitigation for rare and highly valuable wetlands will add delays in review and permitting to a second crossing project.	Comment noted.	SEALT	PEL Study Team
448	Having reviewed the five survey reports/memos produced by the PEL Study in winter 2023-2024, and the preliminary scoring results for Level 2 Screening, the Southeast Alaska Land Trust makes the following conclusions and recommendations.	Comment noted.	SEALT	PEL Study Team
449	The JDNC PEL Study has failed to adequately consult with technical experts from resource agencies on key work products prior to integrating those work products in the screening and analysis for the study.	The PEL study team includes subject matter experts who have consulted on the Level 2 screening process.	SEALT	PEL Study Team
450	“Avoid, minimize, and mitigate negative impacts to the environment” should be a core goal of the PEL Study rather than an “additional goal”.	Recommendation noted.	SEALT	PEL Study Team
451	The JDNC PEL Study has produced sub-standard surveys and reports on regulated subject matter – including impacts to wetlands, impacts to fish habitat, impacts to eelgrass, and impacts to protected species such as eagles and salmon – without vetting the survey protocols or explaining how these reports would be “rolled into” a future NEPA process.	All survey protocols were vetted through the appropriate jurisdictional agency prior to fieldwork through approved workplans. These reports are considered pre-NEPA and used to gauge general impacts and study area characteristics.	SEALT	PEL Study Team
452	The JDNC PEL Study has not adequately addressed the potential mitigation needs for any of the alternatives, either the ones affecting SEALT mitigation sites (requiring re-permitting of the existing permit for the Juneau International Airport and others) or the alternatives simply affecting new special aquatic sites. SEALT remains available to consult with the PEL Study team or ADOT&PF on mitigation options.	Potential mitigation requirements and needs are not known for any of the alternatives. Consultation with jurisdictional agencies would be required to understand mitigation, and jurisdictional agencies (such as the USACE) will not evaluate mitigation until they have received a permit application.	SEALT	PEL Study Team
453	Based on comments provided to the JDNC PEL Study by the TAC and SAC during Level 1 Screening, and review of the preliminary Level 2 Screening, the following criteria and descriptions should be appended to the scoring tables and included in the final analysis.	Comment noted.	SEALT	PEL Study Team
454	“Low Marsh” Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	PEL Study Team
455	“High Marsh” Wetlands Impacted (Natural) - impacts to high value salt marsh	Recommendation noted.	SEALT	PEL Study Team
456	Fishing (Social) - impacts to sport fishing according to ADF&G	Recommendation noted.	SEALT	PEL Study Team
457	Hunting (Social) - impacts to waterfowl hunting according to ADF&G	Recommendation noted.	SEALT	PEL Study Team
458	Recreation (Social) - impacts to recreational activities by residents and visitors including hiking, dog walking, bird watching, wildlife viewing, and other recreation	Recommendation noted.	SEALT	PEL Study Team
459	Cultural Uses (Social) - impacts to cultural activities and uses of the natural resources within the study area, such as the harvesting of traditional foods, medicinal plants, spruce roots, and other traditional and customary harvests	Recommendation noted.	SEALT	PEL Study Team

460	Aviation Approaches (Safety) - impacts to aircraft approaches according to FAA	Recommendation noted.	SEALT	PEL Study Team
461	Aviation Facilities (Safety) - impacts to current and future uses of the Juneau airport to operate, modify, and expand airport facilities according to FAA	Recommendation noted.	SEALT	PEL Study Team
462	Navigability of Gastineau Channel (Safety) - impacts to navigability for each alternative according to USCG	Recommendation noted.	SEALT	PEL Study Team
463	Mitigation Site Replacement (ROW) - impacts to mitigation sites that would require special condemnation, permitting, and replacement procedures	Recommendation noted.	SEALT	PEL Study Team
464	Protected Lands Replacement (ROW) - impacts to protected lands (State of Alaska, CBJ, SEALT, and any others) that would require special condemnation, permitting, and replacement or mitigation procedures	Recommendation noted.	SEALT	PEL Study Team
465	Additionally, the PEL Study's final report should include some preliminary information and suggestions about additional planning and construction projects that would rationally follow a Juneau-Douglas North Crossing as logical termini. Planning tasks and projects may include a North Douglas Master Plan, as well as pedestrian and multi-modal transportation planning for North Douglas Highway and Egan Drive.	Comment noted.	SEALT	PEL Study Team
466	Logical termini are likely to include a Douglas Bench Road, North Douglas Highway improvements, and utility/water/sewer buildout for a North Douglas Highway extension. The costs, resources, and timing of those logical termini should not be swept aside as the PEL Study considers the elimination of more alternatives.	Comment noted.	SEALT	PEL Study Team
467	The alternatives remaining in the JDNC PEL Study Level 2 Screening are ranked here according to SEALT's review of the PEL Study materials, SEALT Habitat Mapping Project materials, and other trusted analysis published on the resources in and around the study area. As none of the Build alternatives have been well justified by the PEL Study so far, an EIS may consider additional alternatives that were missed or eliminated by the PEL Study.	Comment noted	SEALT	PEL Study Team
468	1. No Build a. All Build alternatives considered by this PEL Study would have serious impacts on the unique, rare, and irreplaceable ecological services, hydrology, surface water storage, and other wetland and habitat functions of the Mendenhall wetlands complex. b. Impacts to a site that is objectively important due to its status as a State Game Refuge and a Globally Important Bird Area should be considered with a high degree of scrutiny that includes, quantifies, and compares the farreaching material impacts to those resources from bridge construction in a cost-benefit analysis. c. An EIS conducted to an appropriate regulatory standard will evaluate whether the PEL Study adequately provided a "need" for a second crossing within its Purpose and Need Statement. d. The Purpose and Need for this PEL Study did not consider other types of transportation alternatives, including a ferry, that would avoid impacts to 4(f)/6(f) resources and other protected lands, substantially reduce costs, minimize regulatory review and permitting, and dramatically reduce engineering and design work for a second crossing project.	The existing conditions and data reviewed to develop the purpose and need statement included the limited connection between Juneau and Douglas Island and the risks associated with it, emergency response and access to workplace or other critical resources, traffic pressure on the Douglas Island Bridge and its intersections, and the housing shortage in Juneau. Other types of transportation alternatives were analyzed but dismissed due to not meeting the approved Purpose and Need for the project. A more robust NEPA analysis will be conducted outside of the PEL Study.	SEALT	PEL Study Team

469	2. Salmon Creek a. Minimizes 4(f)/6(f) impacts to the Mendenhall Wetlands State Game Refuge, CBJ Conservation Areas, and other 4(f)/6(f) resources such as trails and public access points SEALT Comments - JDNC PEL Study Level 2 Screening 55 b. Minimal functional impacts to SEALT mitigation sites c. Fewer regulatory and permitting requirements for impacts to protected resources d. Would only eliminate waterfowl hunting on the Refuge at Salmon Creek e. Lower mitigation costs f. Shortest intertidal crossing and use of existing interchange reduce impacts	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
470	3. Twin Lakes a. Among the five remaining "on-Refuge" alternatives, Twin Lakes is the least damaging to habitat and human uses, though impacts are significant b. Minimal to moderate functional impacts to SEALT mitigation sites, but severe functional impacts to 4(f)/6(f) resources c. Would shut down important waterfowl hunting areas on the Refuge d. Substantial impacts to salt marsh and mussel/rockweed beds at Neilson Creek (Douglas Island terminus), and extensive tidelands and shallows used by waterfowl and shorebirds at both termini e. Moderate to high mitigation costs	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
471	4. Vanderbilt a. More damaging to salt marsh, habitat connectivity, and Refuge integrity b. Substantial impacts to 4(f)/6(f) resources, including a key waterfowl and shorebird resting and feeding area c. Moderate functional impacts to SEALT mitigation sites d. Would shut down important waterfowl hunting areas on the Refuge	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
472	5. Mendenhall Peninsula a. Substantially damaging to habitat and function across all species of fish and wildlife that use the wetlands complex b. Moderate functional impacts to SEALT mitigation sites depending on the design and avoidance/minimization of impacts c. Due to the extreme relative costs and impacts to the environment, 4(f) resources, and SEALT mitigation sites, the Mendenhall Peninsula is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
473	6. Sunny Point West a. Jointly with Sunny Point East, the Sunny Point West crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point West would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point West alternative is fatally flawed and should be removed from consideration.	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team

474	7. Sunny Point East a. Jointly with Sunny Point West, the Sunny Point East crossing is the most damaging crossing location to 4(f)/6(f) resources & SEALT mitigation sites. b. Costs to replace SEALT mitigation sites/functions with appropriately matched in-kind resources would make this alternative unfeasible and imprudent. c. Sunny Point East would bisect the hunting areas into unmanageable units, eliminating waterfowl hunting in the Refuge. d. The aviation safety concerns flagged by the Juneau Airport Board and staff have not been addressed in writing by the PEL Study. e. Due to the higher relative costs, impacts to the environment and 4(f) resources, and direct fill of SEALT mitigation sites, the Sunny Point East alternative is fatally flawed and should be removed from consideration. Recommendations to PEL Study Team and Future Second	None of the six alternatives evaluated in level 2 screening have been dismissed or promised to move forward into the NEPA phase at this time. The PEL study report will make those recommendations.	SEALT	PEL Study Team
475	In order to reflect the best available information, more granularity should be required in the scoring tables. SEALT could support a range of -5 to +5, or the use of fractional scoring such as -0.5, -1, -1.5, etc.	Recommendation noted.	SEALT	PEL Study Team
476	The demonstrably flawed work products from this JDNC PEL Study, including the five reports on wetlands, eelgrass, intertidal habitat, bird and wildlife habitat, and bridge volume forecasts, and the scoring based on those reports, should not be included by reference or accepted de facto in the EIS or any portion of the NEPA process.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	PEL Study Team
477	This PEL process has failed from the start to identify key resources and constraints, share them with the public and project partners, or use them in selecting and evaluating alternatives. For this reason, there may be additional alternatives considered by an EIS that were not considered within the JDNC PEL Study, or that were eliminated early for reasons that were not supported by the broad majority of technical reviewers.	The supplemental information gathered to support the survey-level PEL process would be incorporated into the NEPA analysis if the information is appropriate, relevant, and sufficient (in quality and quantity) to support the NEPA analysis. Additional studies and information are likely to be needed to "contribute significantly to the environmental analysis" for the rigorous NEPA process.	SEALT	PEL Study Team

32. Public Comment and Response Summary

Date Received	Name	Description of inquiry / request	Response	Response Date	Responder	Event
3/24/2022	Laurie Craig	Jake, Thanks to you and your colleague for explaining your research this morning on Juneau's trails. We met in the parking lot of the airport dike trail or Emergency Vehicle Access Road (EVAR) in airport vernacular. I noticed that you looked at the trailhead sign. There are more along the trail, and they are excellent. I took photos of two sets of three signs. These are erected by ADFG. One asks folks to be careful with their dogs. It is adjacent to a duo of signs. Farther along the trail is the trio. I have given you closeups so you can read these lovely signs. Because you are analyzing cultural resources, I'll suggest three more trails with very helpful signage. Auke Lake Trail — near its access from Glacier Highway — has three superb signs explaining geology and Tlingit usage of the area. These signs were created by Richard Carstensen with Discovery Southeast. They are very detailed. Richard has done two other similar trail signage projects that I know of: Kaxdigoowoo Heen Dei (aka Brotherhood Bridge Trail) and Outer Point Trail in Douglas. These are all worthy of special mention for their thoroughness, fine illustrations, maps, and historical research. As you are learning, Juneauites love our trails. Thank you for taking time to learn about them and share their value with your employers.	Good Morning Renee and Rachel! While Adam and I were conducting the windshield survey of 4f/6f properties in Juneau last week, we had a very pleasant interaction with a curious member of the public. We were unspecific in describing the overall project (e.g., a secondary crossing to Douglas Island), but did describe the work we were conducting insofar as we were documenting trails and recreation areas, in addition to historic properties. I provided Laurie with my DOWL card, and she followed up less than 8 hours later with the email below. I'm not certain how the project is incorporating public or stakeholder input, but wanted to provide this while it was fresh in my mind. I will be responding to her this week thanking her for the additional details and noting the designer for the trail kiosks/signs. If there is anything further you would like from me, please just let me know. Have a great week! Sincerely, Jake	3/28/2022	J. Anders	

		Let me know if I can help you additionally. Dog sign located at Mendenhall River where the dike trail turns east. Two signs near the dog sign, at the river. Trio of Mendenhall Wetlands State Game Refuge sings in the airport dike trail. There are many trail access points to the refuge. Below are closeups of this trio of signs.				

3/30/2022	Craig Dahl	Morgan This is just the introductory email to link up. As said on the phone, we would be very interested to be part of the committee process as well as having DOWL present to our chamber committee the process and timelines involved. I have no hesitation about taking credit for moving this project back onto the table, and for many reasons it feels like it's the right time to make this happen. We respect the process that has to be followed and would like to be involved along the way. As with any project – especially in Juneau – there will be a fairly organized group of opposition, so moving in line with all regulations is important. I know this has been said to DOT through the discussion on the MOU between DOT and the City & Borough of Juneau, but we wanted to urge that this process focus on the two (maybe three) logical alternatives rather than wasting time on the ideas that were looked at the last time around that had no hope of ever being approved and did not pass the test of other demands for the crossing. We recognize the significant cost of this crossing, which has always been one of the arguments against it – but future development of North Douglas for housing, deep water port, barge terminal, access to Eaglecrest Ski Area, emergency services etc etc. make this worthy of moving forward. It has taken longer that we expected to get the agreement done with the State, but timing may still be right in terms of the availability of federal dollars. I look forward to working with you on this project. Regards	Thank you, Craig. This information is helpful. We will get more information on the process to you soon. Morgan McCammon	3/30/2022	M. McCammon	Advisory committee invitation

		Craig				

4/8/2022	Karen Pallenberg	Hi Marie, Hope you are well. We live out N. Douglas and our neighbors recently had a small get together to discuss the upcoming Second Crossing project. Since I used to work in CBJ Engineering, I've been picking my way through people there to try to find out the status of the project. Looks like I should have started with you! Can you give me a brief summary on where the project is at? And do you have any suggestion on when the appropriate timing would be for the neighbors to have some input? At this point, anything you have would be awesome! Thank you!	Good afternoon Karen, Thank you for your interest in the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study. The Alaska Department of Transportation & Public Facilities (DOT&PF) has chosen the PEL process to take a fresh look at the study area, environmental setting, and potential alternatives. The objective of the study is to spend a greater amount of effort on the up front planning, environmental research, and public/stakeholder outreach, in order to learn more about the study area, garner consensus, avoid impacts, and streamline the future project development. This study is just getting started and will largely be completed over the next 12-15 months. The study will evaluate the project purpose and need and possible alternatives that could move forward into a future environmental documentation effort. To date there is no funding identified for further studies, design, or construction. The first Public Open House is scheduled for May 11, 4:30-6:30 pm, and will be held virtually. This Open House will focus on introducing the project and understanding the existing conditions. To supplement this public process, the project team has established two advisory committees that will meet four times over the next year: a Technical Advisory Committee focused on technical and regulatory issues and a Stakeholder Advisory Committee focused on understanding the range of community perspectives. The neighborhood associations in the project area have been invited to participate on the Stakeholder Advisory Committee and have all	4/12/2022	M. McCammon	

			committed to participating, including the North Douglas Neighborhood Association. The project website is currently under development and is expected soon: www.JDNorthCrossing.com. Please email the project team anytime at JDNorthCrossing@dowl.com. Thank you and we look forward to hearing more from you and your neighbors. Morgan McCammon			

4/21/2022	Amy & Stan Lujan	Project planners, We are excited to hear that this project is being reviewed again and hope that it can move forward quickly, so as not to miss out on upcoming funding availability! As Douglas residents, we've occasionally been caught in heavy traffic at Juneau's only bridge due to accidents or construction and thought, "What if...?" In addition to providing better emergency access and traffic flow, a 2nd crossing will make north Douglas so much more accessible and reduce fuel costs for traffic between Douglas and the valley, which would be greatly appreciated. Thank you for your consideration.	Good morning, Thank you for your comments on the Juneau Douglas North Crossing PEL Study. I have shared this with the project team and added you to the project email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study. Virtual Open House No. 1 Wednesday, May 11, 2022, 4:30-6:30 pm Zoom (www.zoom.com) Meeting ID: 872 5158 1127 Meeting Passcode: 460799 Click here to directly link to the Zoom meeting Visit the website www.JDNorthCrossing.com for further information on the PEL Study. Thank you, Morgan	4/25/2022	M. McCammon	

4/21/2022	Brenda Taylor	Hi, I live on Mendenhall Peninsula Road. I'm writing because a friend of mine forwarded your email of April 13 re: Stakeholder Advisory Committee Meeting 1 on April 27 to me. She wondered - and now I do as well - whether there is anyone from our neighborhood/road on the Advisory Committee. I don't recognize names from emails - but I also don't know everyone on our road for sure. Do you know if there's anyone from Mendenhall Peninsula Road on the committee? If so, who? If not, may I attend? Thanks, Additional Comment Thanks Morgan, I am not aware of a Mendenhall Peninsula Rd and/or Engineers Cutoff Neighborhood Association and I don't see anything that would be close to that in the list registered with the city. I'm assuming that the Fritz Cove group only applies to the road itself and not to the entire Peninsula? Thanks for keeping me updated	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We have representatives from each of the neighborhood associations in the study area on the Stakeholder Advisory Committee. I have shared your request with the project team and added you to the study updates email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study. Virtual Open House No. 1 Wednesday, May 11, 2022, 4:30-6:30 pm Zoom (www.zoom.com) Meeting ID: 872 5158 1127 Meeting Passcode: 460799 Click here to directly link to the Zoom meeting Visit the website www.JDNorthCrossing.com for further information on the PEL Study. Thank you, Morgan	4/25/2022	M. McCammon	

4/21/2022	Rachel Kelly	First of all - please do it! I was unable to find the proposed locations for this online, so I'll keep an eye out and provide more specific feedback once I see them but wanted to make sure you get my YES vote in for a second crossing. Thank you!	Good morning, Thank you for your comments on the Juneau Douglas North Crossing PEL Study. Alternative crossing locations have not yet been selected. I have shared your comments with the project team and added you to the project email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study. Virtual Open House No. 1 Wednesday, May 11, 2022, 4:30-6:30 pm Zoom (www.zoom.com) Meeting ID: 872 5158 1127 Meeting Passcode: 460799 Click here to directly link to the Zoom meeting Visit the website www.JDNorthCrossing.com for further information on the PEL Study. Morgan	4/25/2022	M. McCammon	

4/21/2022	Roger Ramsey	The above would get my vote for a second crossing. It affects the least area. And lands on an area already heavily impacted by humans on the mainland side. Limits skier Traffic on north Douglas highway to a short distance. Lands on a city Lot on the island side. I hope this helps, See letter dated 4/21/2022	Good morning, Thank you for your comments on the Juneau Douglas North Crossing PEL Study. Alternative crossing locations have not yet been selected. I have shared your comments with the project team and added you to the project email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study. Virtual Open House No. 1 Wednesday, May 11, 2022, 4:30-6:30 pm Zoom (www.zoom.com) Meeting ID: 872 5158 1127 Meeting Passcode: 460799 Click here to directly link to the Zoom meeting Visit the website www.JDNorthCrossing.com for further information on the PEL Study. Thank you, Morgan	4/25/2022	M. McCammon	

4/22/2022	Helen Clough	To whom it may concern The FAQ document for this project says to sign up to receive study update emails from the website yet there is nowhere to sign up on the website that I could find. Like most Juneau residents I am very busy in the spring and summer and would much rather be fed info than having to log in to your project website regularly. I live on one of the transportation routes that will likely be an alternative so am very interested in the project as it would directly affect my property and property value to say nothing of my personal quality of life. Thank you.	Good afternoon, Thank you for your comments on the Juneau Douglas North Crossing PEL Study. I have shared this with the project team and added you to the project email list. Below is the information for the upcoming Virtual Open House. Join us to learn more about the PEL Study process, provide feedback on the existing conditions in the area, and give us your thoughts on the draft purpose and need. This is the first of three open house meetings planned during the PEL Study. Virtual Open House No. 1 Wednesday, May 11, 2022, 4:30-6:30 pm Zoom (www.zoom.com) Meeting ID: 872 5158 1127 Meeting Passcode: 460799 Click here to directly link to the Zoom meeting Visit the website www.JDNorthCrossing.com for further information on the PEL Study. Thank you, Morgan	4/25/2022	M. McCammon	
4/23/2022	Bruce Baker	Please add my email address to your public notification list for any 2nd crossing information. Thank you,	Thanks Bruce, we will add you!	4/25/2022	I. Gallion (CBJ)	

4/23/2022	Michael Stanley	Dear Ms. McCammon and JD North Crossing Study Team, Thank you for your response yesterday morning regarding the PEL Study for a North Douglas Crossing and the Stakeholder Advisory Committee meeting scheduled for this coming Wednesday. In order to provide your team with some background of the previous involvement by the North Douglas Neighborhood Association (NDNA), through its Second Crossing Committee, in prior studies and proposals for a second crossing, I am sending you four documents (all in one pdf), as follows: (1) a Joint Statement of Mendenhall Stakeholder Groups on the North Douglas Crossing Project; (2) a letter from the NDNA to the CBJ Planning Commission dated May 4, 2007; (3) a statement that was presented to the CBJ Assembly on January 27, 2007, by a representative of NDNA; and (4) a letter from NDNA to then-Mayor Botelho and the CBJ Assembly, dated September 26, 2006. These documents outline the efforts by the NDNA and its Second Crossing Committee (of which I was chair) to encourage the CBJ and others to address concerns we had regarding the impacts to the North Douglas neighborhood if a second crossing were built. Although these comments are fifteen years old, they reflect a lot of work devoted to the project as it was then conceived, and provide a starting point for your team to understand the concerns of residents of North Douglas. I look forward to participating in the Stakeholder Advisory meeting, and would be happy to answer any questions your team has about these matters at that time. I understand you will be sending out an agenda for the meeting, which I look forward to reviewing. Thank you.	Good morning, Thank you for this information and for participating in the Stakeholder Advisory Committee last week. This is important background material for the study, and we appreciate your sharing this with the study team. We look forward to your continued participation. If you would, please share the Open House Details with the NDNA, this can also be found on the project website: www.jdnorthcrossing.com. We would like as much participation as possible. Thank you, Morgan	5/4/2022	M. McCammon	Advisory committee invitation

		Mike Stanley				

4/26/2022	Patty Wahto	Hi Morgan. It was a great kick-off meeting yesterday. I started thinking, as I made the comment about 'why' the second crossing, and realized that local emergency and law enforcement would have been good to have on the meeting. Maybe for future. Maybe that is already planned for other meetings, but as the folks who respond to accidents and calls, both JPD and CCFR would be good to get input on the second crossing (purpose and need). Similar to the Egan-Yandukin project. Patty	Hi Patty, Thanks for your participation yesterday and for these comments. We do have emergency response as one of the emerging themes for the purpose and need, so it sounds like we are in agreement that this should continue to be an issue worth discussing. We will look for ways to collect their input for future meetings. If you have other thoughts that come to mind, keep them coming our way. Have a great day! Steve	4/26/2022	S. Noble	Advisory committee comment - Meeting 1
4/27/2022	Winston Smith	Discussion issues being recorded online. As a board member, I'm representing the Juneau Audubon Society. I currently have an appointment as a principal research scientist with UAF not UAA. On Wed, Apr 27, 2022 at 12:20 PM Winston Smith wrote: This Teams program sucks! I could not stay connected. If you have suggestions for future meetings, I'll consider it but I don't have time to waste signing in to some packgae a dozen times to try to get reconnected.	Hi Winston, Thank you for your email. We apologise again for the technical issues with Teams. We hope to have the next meeting (workshop) in-person. Copies of the meeting presentation and breakout room discussion/summary will be shared to all attendees. Kind regards, Jovie Garcia	4/27/2022	J. Garcia	Advisory committee comment - Meeting 1

5/5/2022	Alisha Falberg	Subject: [EXT] Questions on obtaining information on project Hello, Can you please tell me where I can find further information, as well as the PEL, for the North Douglas Bridge project? Also, how the public can submit comments. I am unable to make the May 11 open house. Thank you, Alisha Falberg	Hi Alisha, Thank you for your interest in the Juneau Douglas North Cross PEL Study. You can find information about the PEL Study on the website http://jdnorthcrossing.com/. The public can submit comments to email JDNorthCrossing@dowl.com. Also, the open house meeting materials, including the prerecorded presentation, will be posted to the website, under 'Open House #1' on 5/10/2022. This is the first of three open house meetings planned during the PEL Study. We have added you to the project email list for future study updates and open house meeting information. Kind regards, Jovie Garcia	5/5/2022	J. Garcia	
5/11/2022	Roger Ramsey	Thanks for the meeting. After further consideration, i have come up with a different preferred plan. It would be a tunnel that comes up to the Fish Creek Road intersection where a round about would be built. It would be dug from the industrially zoned property near Maplesden Way and all excess dirt could go into Bicknel's pond, which has ample room for it. The soil under the channel is such that it could potentially be used to make some of the ingredients for the superstructure of the tunnel. The boring company made a mile of 12' diameter tunnel for $10 Million. That wont work here but using some of their technology will. This will present the least cost, in all aspects, when environmental issues are considered Please see attachment.	Good morning Roger, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the project. Kind regards, Jovie Garcia	5/12/2022	J. Garcia	

		Thanks again, Roger				
5/12/2022	Charlie Herrington	Subject: [EXT] North Crossing Thank you for starting this process. I believe a second crossing is necessary for both public access and safety. I've heard rumors that the most sensible crossing location would be less than a mile north of the current bridge with one end at the Juneau Yacht Club. I see the logic there. It would probably be less environmentally impactful compared to a North Douglas crossing by the wetlands and Fritz Cove. Hopefully it could also aid much needed housing development on CCTHITA land uphill on the island side. However, I really hope the crossing is positioned at the north end of the island. That would support easier mountain access at Eaglecrest for valley residents and airport hotels. More importantly, a north crossing would expedite the development of the West Douglas Port, which should be the highest priority considered. With a relocated port, downtown land could be redeveloped into hotels	Good morning Charlie, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Jovie Garcia	5/12/2022	J. Garcia	

		and accommodations specifically for independent travelers, helping Juneau reduce its reliance on industrial levels of cruise ship passengers. Paired with a ban on non-owner occupied Airbnb units, Juneau's rental housing market could really improve with visitors staying in beds intended for tourism, not locals.				

5/12/2022	Duff Mitchell	Hi Team, I received a call today from Duff Mitchell, with Access Alaska Coalition. This group supports increased transportation connectivity in the Juneau area. He was requesting that the recording of the Open House be released publicly on the website. His group wanted to know what questions and comments had been made before making theirs. He also requested that this group be afforded a way to get more involved in the process and asked about the Advisory Committees. I told him that I would pass along his request to post the entire video and participation in the Stakeholder Advisory Committee. I helped him navigate to the prerecorded video on the website and the comment link. I also let him know that all ideas are on the table at this point and we welcome all comments. His email address is Duff.Mitchell@juneauhydro.com. He clarified that he is not representing Juneau Hydro, only himself and Access Alaska Coalition. Morgan McCammon	Phone conversation	5/12/2022	M. McCammon	
5/12/2022	Jim Dorn	Subject: [EXT] North Douglas Crossing Comments The channel is a significant migration corridor for salmon returning to DIPAC. The channel from Fish Creek to the Eaglecrest road has become one of the most productive and popular shore based sport fishing opportunities for returning salmon in the Juneau area. Any water flow restrictions that impact this migration corridor need to be mitigated. Consideration should be given to	Good morning Jim, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the project.	5/12/2022	J. Garcia	

		building a crossing on pilings as opposed to an earthen causeway like Egan Drive.	Jovie Garcia			

5/12/2022	Reed Stoops	Subject: [EXT] Public comment I am a Juneau resident since 1971 and have taken part in all of the past reviews for a second crossing. I remain unconvinced that it is needed enough to justify its high cost, no matter where it is located. The only significant benefit is that in the very rare event that the Juneau Douglas bridge would be damaged and temporarily closed there would be an alternative. To address that, the least costly alternative would be to build it where the channel is the easiest to cross, which is in the Pioneer's Home area. Even that will be very expensive and serve almost nothing but providing an alternative. So, though I would still oppose, that would be the least expensive and least environmentally damaging alternative. There are no real economic development projects that would be opened by a second crossing no matter where it is located. A new port at Point Hilda is not viable. Private land from Outer Point west has never been available and likely won't in the future. CBJ land is all upland of a North Douglas road exension and not particularly desirable. Damage to the Mendenhall Wetlands is a concern to many. The large budget for the project would be better spent by improving the road to Echo Cove and beyond and building a new ferry terminal that would cut the travel time to Haines and Skagway. Those would provide real economic benefits. Juneau's population has not grown for quite some time and there is no reason at the present to	Good morning Reed, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Jovie Garcia	5/12/2022	J. Garcia	

		assume it will have substantial growth in at least the next decade. Thank you.				

5/14/2022	Emily Kane	Honestly I don't understand the appeal. Folks living out past Eaglecrest certainly don't want a straight shot to and from Lemon Creek. Plus aren't we trying to stop disturbing wetlands? I would much prefer developing another senior living facility, another childcare facility and more affordable housing that is pleasantly landscaped and doesn't look cookie cutter with CBJ funds. . Thanks for recording my comments.	Good afternoon Emily, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Morgan McCammon	5/16/2022	M. McCammon	
5/14/2022	Jill Lingle	To those who can influence the planning process for consideration of a second crossing. First if I could vote it would be NO regarding building a large bridge from Douglas to Juneau. My main opposition is a concern it would detract from the natural beauty of the area. I also feel we are experience a world wide time of challenges and possible scarcity's that mean we should only focus on essential projects and expenses for a few years. Many people commute 30 minutes or more daily down south so making travel time shorter or easier should not be a consideration in my opinion. I also feel that people are accepting the risk of finding a way to evacuate in an emergency if they decide to live or work in Douglas. Finally. Has anyone considered building a four lane highway like Egan drive along Douglas, where there is a a need to ease traffic? Maybe this could include building a new four lane bridge right next to the one at 10th street and then removing the current bridge or rebuilding the current bridge!	Good afternoon Jill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Morgan McCammon	5/16/2022	M. McCammon	

		Thanks for the opportunity to provide my thoughts. citizen for 24 years.				

5/16/2022	Duff Mitchell	Hi Team, I received a voice message over the weekend from Mr. Mitchell requesting again for his group, Access Alaska Coalition, to join the Stakeholder Advisory Committee. Please let me know your thoughts on this. And, the request to post the recorded Open House and Q&A session on the website. Thank you, Morgan McCammon	Good afternoon, I received your voice message. The team is looking for information on Access Alaska Coalition. Is this the same group as this https://www.accessalaska.org/? Here is information on the project website from the Open House: Southcoast Region Project, Alaska DOT&PF (jdnorthcrossing.com) Please send any comments, questions, or concerns to the study team at JDNorthCrossing@dowl.com. While past studies are considered by the team, no alternatives have been selected yet and all concepts are being reviewed as part of this study. We are interested in the ideas you and your organization have. Thank you, Morgan McCammon	5/16/2022	M. McCammon	Advisory committee comment

5/16/2022	Duff Mitchell	Hi Jovie, Duff Mitchell from Juneau called abou the JDNorthcrossing. He says he needs info by today for his board meeting tomorrow at 8am. You can call him back at [contact information redacted]. Marella Gungob	Duff, Thanks for your time on the phone today. As mentioned, all information currently available is on the project website: www.jdnorthcrossing.com. We will post the meeting record as soon as it is available/approved. I will enquire about posting the Zoom transcript with DOT&PF. With regard to the Access Alaska Coalition – I appreciate you sharing your purpose; if you could let me know a little more about your group and membership, I can share with the project team and we can talk further about the possibility of your group's participation in the Stakeholder Advisory Committee. I am the PEL Study lead – please feel free to reach out if you have any questions. Thanks Renee. Renee Whitesell, PTP	5/16/2022	R. Whitesell	Advisory committee comment

5/16/2022	Duff Mitchell	Hi Renee and thank you so much for calling me back. I did find Morgan's earlier email in my spam folder so I apologize for not seeing when she sent it out earlier today. The Access Alaska Coalition is a working group of employers and business folks in Juneau who advocate for more transportation access. Our Mission is Fostering improved access to all Alaska… for security, opportunity and prosperity for all Alaskans today and for future generations. I am attaching our letterhead that identifies our Board of Directors While we are primarily focused on to and from access in Juneau, the 2nd crossing has come up. We would be taking an economic, safety and security perspective in this or any other transportation issue. Please note that any involvement in the advisory would need to be approved by our board and a liaison established. We believe our perspectives, construction, environmental permitting and transportation planning experience of our members would be beneficial to DOT and your efforts on the PEL. I hope you find this information on the Access Alaska Coalition helpful. Kindest regards, Duff AAC board member	Access Alaska was added to the Stakeholder Advisory Committee			Advisory committee comment

5/17/2022	Tomas Boutin Juneau, AK	RE: [EXT] Public Comment Good afternoon, I participated in a group of concerned people back when the City and Borough of Juneau put a proposed N. Douglas Island bridge or crossing on its ballot. I think the group had about 200 active participants. My initial thought at this time is that so long as any proposed crossings do not bisect the Mendenhall Wetlands Refuge, and so long as municipal tax receipts are not a proposed construction and/or maintenance funding source then I am open to evaluating proposals. Therefore, a crossing that comes off the Mendenhall Peninsula, or a crossing that is near the hospital and the salmon hatchery could be worth evaluating but a proposed crossing falling in between those two locations would not be acceptable. However I would not think that a second crossing to Douglas Island should be among the top five or ten construction priorities within this borough, nor would I expect to see it on a list of the top 100 proposals for statewide construction. Thank you for your time.	Hi Tomas, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Jovie Garcia	5/17/2022	J. Garcia	

5/23/2022	Cynthia Gordon Douglas Resident	[EXT] North Crossing in Juneau Yes!! Please build another crossing. It's needed!!! Douglas Resident	Hi Cynthia, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Jovie Garcia	5/23/2022	J. Garcia	
5/24/2022	Skip Lundstrom	Subject: [EXT] Alternate Power Besides all of the good reasons for the second crossing, the point I would like to address is the need for a second 69KV power line to the island. Should the current high voltage line fail for any reason, the lower voltage line that runs through the bridge will only support the demand during summer months. I expect electrical engineers have been talking about this for years.	Hi Skip, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study. Kind regards, Jovie Garcia	5/24/2022	J. Garcia	

5/26/2022	Amy Rodman	RE: [EXT] North Douglas bridge project Southcoast Region Project, Alaska DOT&PF (jdnorthcrossing.com) I've reviewed at the DOT website and the April 2022 fact sheet for this North Douglas crossing project. The public outreach documents/website read like someone who has never been to Juneau drafted it. The local water bodies have geographical names and I suggest having DOWL staff in your Juneau office confirm the relevant names. Blank project-related maps don't appeal to the local audience, if authentic feedback is sought. This proposed second bridge should focus on a connection from Douglas Island to Juneau, specifically north Douglas. On the DOT website, the title and proposed second crossing should read, "Juneau-Douglas" to coincide with the existing Juneau-Douglas bridge (not "Douglas Island Bridge"). "Juneau-Douglas" demonstrates that the project has two destinations, such as "Juneau to Douglas" versus listing two town names consecutively as "Juneau, Douglas." This second bridge will likely be locally referred to as the North Douglas bridge. Below are additional suggestions for meaningful and relevant public outreach materials: • "The study area is between mainland Juneau and northern Douglas Island, in the area north of the existing Juneau-Douglas Island Bridge." • Vehicle cCongestion during peak trafficperiods on the existing Juneau - DouglasIsland Bridge; • "The previous studies highlighted several reasons for a north Douglas crossing:" • The potential for residential, commercial, industrial and port development at on the western side of Douglas Island. • "DOT&PF has chosen the Planning and	Hi Amy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We appreciate your suggestions and I have shared your comments with the project team. Kind regards, Jovie Garcia	5/26/2022	J. Garcia	

		Environmental Linkages (PEL) process to identify and evaluate a purpose and need for connecting Juneau with the north end of Douglas Island." • "The study area considers (several, one, two, how many?) potential crossing locations between the north end of Douglas Island and mainland Juneau in the channel area north of the existing Douglas Island Bridge." • I suggest labeling Spuhn Island and the Fritz Cove area (road) on the map if there is room, since that is where the proposed North Douglas bridge wraps around. • What is meant by the phrase "the channel area?" Were you referring to Gastineau Channel, which the Juneau-Douglas Bridge crosses? Or were you referring to Favorite Channel, which is north of Auke Bay ferry/transportation port? • Juneau is geographically synonymous with mainland. There is no need to state "mainland Juneau" in any public outreach verbiage. Douglas Island residents do not call themselves Juneauites. Thanks for your time. Take care, Amy				
6/2/2022	Barbara Mecum		On June 2, 2022, I drove out and visited with Barb Mecum and her husband. This visit was at their invitation as they desired me to see their home, the setting, and the view out the back of their home. They were very kind and welcoming. We had a good visit and they made it clear that they did not want to see a highway bridge connecting from Douglas Island to Mendenhall Peninsula because of the impact to their viewshed to the west. They indeed have a beautiful home on a	6/2/2022	S. Noble	

			very quiet shoreline across from the airport. They indicate that they frequently fish and kayak in front of their property. I thanked them for their gracious invite and left.			
6/9/2022	Duff Mitchell	Hi Renee. I am reaching back out to follow up on Access Alaska Coalition participation. Let me know. Kindest regards, Duff	Hi Duff, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We notice that one of the coalition directors, Pat Kemp, is a representative on the Stakeholder Advisory Committee. We generally suggest that each organization have one primary representative and that person share information with their group, bringing feedback to the meetings. Please work with Mr. Kemp to participate with the Advisory Committee. As always, we welcome feedback from everyone so please let me know if you have any further questions. Best regards, Renee Whitesell	6/9/2022	R. Whitesell	Advisory committee comment

6/22/2022	Mike Stanley	Dear Ms. McCammon, I received your e-mail regarding the workshop on July 19. I accepted the invite, but also have a couple questions/comments. Is this workshop the same as the stakeholders' meeting that was scheduled for July 11 (as I recall)? I assume that it is and you've just moved the date, but I want to confirm. I will be attending the workshop on behalf of the North Douglas Neighborhood Association, Second Crossing Committee, so we won't need an alternate. But for future reference, the alternate from our group would be Julie Bednarski if I am not able to attend any future workshops. Her e-mail is juliebednarski@yahoo.com. I and other committee members met with the NDNA Board earlier this month, and I was authorized to continue as the stakeholder representative from NDNA. I will be keeping the board informed of developments in the PEL process, including the results of the workshop on the 19th. Thank you. Mike Stanley	Good morning Mr. Stanley, Thank you for accepting this invitation to participate in the workshop. Yes, we moved the date to July 19. This workshop will include members of both the Stakeholder and Technical Advisory Committees. I did include Julie Bednarski in the invitation as I have her name and email address as the alternate participant for the NDNA. We appreciate that you will be discussing the ideas developed in the workshop with the NDNA Board and membership and sharing feedback. We appreciate your participation and look forward to meeting you at the workshop. Morgan McCammon	6/22/2022	M. McCammon	Advisory committee comment - Workshop
7/5/2022	Barbara Mecum	Dear Steve, Just a quick note to extend a sincere thank you for making the time to come all the way out to our place on North Douglas in Bayview. We really appreciate your openness to gathering feedback and information on the project. We are looking forward to the many discussions ahead and finding our way through the process. So glad you're in charge! Thank you, Barb & Doug Mecum				

7/25/ 2022	Barbara Mecum		Hi Barb, Marie and I got your messages and we just wanted to pass along the current schedule that we are still following. We recently kicked off the alternatives development and will be preparing an interactive on-line tool for the public to participate in that process. We are still on track for having the second round of advisory committee meetings in October or November of this year. We will be in touch when we have more specifics on these issues. Thanks so much for checking in with us. Let me know if you still want to have a conversation. I am back in the office this week and available on my cell phone. Have a good evening, Steve	7/25/ 2022	S. Noble	

8/4/2022	Winston Smith	After reviewing the attached documents, I have a few comments listed below: First, I think it is important to differentiate a need from a desire because needs should take priority over desires in reviewing various options. For example, redundancy for health and safety concerns is clearly a need, whereas access for economic development is more of a desire. I don't see any distinction in the document or attempt to prioritize goals and objectives PEL is seeking to accomplish. Secondly, I perceive a bias in the existing document. Why should economic impact be listed above emergency response. Indeed, in my view emergency response is a need whereas, economic impact is a desire. Yet, in the list presented on page 3 has economic impact and developable land each at the top of the two columns of emerging needs. Also, development of growth areas is at the top of the needs list on page 4. This appears to be the driving influence in this process. In addition, in the list of goals to be met by various alternatives, enhance and protect public health and safety is near the bottom of the list. Three, although providing infrastructure consistent with CBJ planning framework is included as a criterion, little emphasis appears to be given to practical considerations, such as whether an option is doable because of costs, environmental barriers, or beyond the CBJ planning framework or expectations, which should be more explicit and front and center. Thank you.	Good morning Winston, Thank you for your input on the draft purpose and need statement. Your feedback has been shared with the team. Best regards, Morgan Revised Purpose and Need Statement shared online November 2022	8/5/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

		Winston Smith				

8/5/2022	Linda Shaw	Hi Morgan, Molly Zaleski and I looked over the Juneau Douglas North Crossing PEL Study - Purpose and Need Statement and have the following comments. We support the following statement as important to the purpose and need of the project. "Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment." We felt the following two statements were seemingly contradictory. "Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles." and "Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island" Thank you for the opportunity to comment on the purpose and need statements. LInda and Molly Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Good morning Linda and Molly, Thank you for the input. I will share this with the study team. Morgan	8/8/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

8/5/2022	Margo Waring	First, thanks to Ron for a clear statement of a clearly missing piece that was a major focus for the group I joined at Centential Hall. In addition, let me make a few additional comments. I note that the language of this document is vague, aspirational and often illogical. Purpose The purpose of the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study is to identify a north crossing corridor that will reduce dependency on the existing North Douglas Highway, improve network connectivity, reduce travel time and emissions, provide redundant access, improve emergency response time, and provide infrastructure consistent with City and Borough of Juneau's planning framework. Need The successful solution should address the following needs: • Add roadway capacity and utility infrastructure to support the development of growth areas envisioned on North and West Douglas Island. No growth is envisioned for North Douglas in any CBJ planning document. The West Douglas planning document is due for a substantial review because the population projections and other constraints have changed dramatically, for example CBJ's adoption of a greenhouse gas goal. • Provide redundancy and reduce travel times for public safety and emergency response in the event of traffic disruption on the North Douglas Highway, Douglas Island Bridge, or Egan Drive. • Create a traffic network with greater connectivity to Egan Drive and Glacier Highway that includes improved motorized and non-motorized access to North Douglas Island and reduces transportation barriers to land development and emergency	Good morning Margo, Thank you for this input. I will share this with the study team. Morgan Revised Purpose and Need Statement shared online November 2022	8/8/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

		response. The identified alternative(s) should also meet these additional goals: • Reduce overall vehicle miles traveled and thereby reduce emissions and improve viability of electric vehicles. Increasing miles available to be traveled on will, according to all studies, increase emissions. Juneau is a leader in per capita adoption of EVs. New federal incentives will likely increase adoption. It is hard to understand how increased miles increases the vialbility of EVs. • Improve the quality of life through reduced emissions, improved access, utility infrastructure, and economic development. This is vague and highly questionable: how will increased miles reduce emissions (even if some trips are reduced in total miles, a bridge to North Douglas will increase traffic by accessibility. There are no plans for utility infrastructure improvements for North Douglas. Utility infrastructure and economic development are only part of the speculative concept of a satellite development. • Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts to the natural environment. • Improve access and connection to recreational, cultural, and subsistence resources. • Enhance and protect public health and safety. Logically, development of a second crossing, even if a tunnel, will not improve the existing natural environment as there is no place where this is "possible". The natural environment may be changed but not "improved." Adverse impacts to the natural environment cannot be avoided. That leaves only mitigation and minimization.				

		• Satisfy applicable federal, state, and local plans, policies, and regulations. I would like to see how construction and use of a second crossing will help meet CBJ's climate goals.				

8/5/2022	Ron Somerville	Morgan, thanks for the draft Purpose and Need Statement. I thought it covered our collective efforts quite well. I do have, however, a couple of comments. It is possible that my comments are premature in that a more complete analysis will be presented later. Part of the PEL process and deadlines are unclear to me but I am a little slow at 84. I reviewed my notes from the meetings I attended and a couple of omissions seem important. Under the Public and Agency Involvement Section, the emerging themes were expressed and listed. One of the important themes left out was "protection of the existing natural environment within the study area." This of course refers to the Refuge in particular. Although many of us would support a second crossing to Douglas, the solution is in the details. Leaving out the communities concerns for environmental issues as a major theme is a major oversight. Every meeting I have attended there has been a clear expression from the public to make environmental issues a major part of this study. Under the "need" category your "additional goals", other than advocacy details, again skim over the environmental issues except to say, "Improve existing natural environmental conditions where possible and avoid/minimize/mitigate adverse impacts on the natural environment." Why not say, "develop ways to minimize impacts on the Mendenhall Refuge." One of the first meetings I attended, I offered that a major need was to identify all of the past crossing studies, recommendations and results with an assessment of why the proposals were unsuccessful. Except for the first study which	Good morning Ron, Thank you for this input. I will share this with the study team. Morgan Revised Purpose and Need Statement shared online November 2022	8/8/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

		proposed that the major option was from the Mendenhall Peninsula to North Douglas, the others had varying degrees of impacts on the Refuge. In my humble opinion, the potential impacts on the Refuge is one of the major stumbling points for this proposal and efforts to minimize those concerns early on in this process is a major mistake. Thanks again for the draft. Ron Somerville				

8/6/2022	Christine Woll	Hi Morgan - Do you know what the topic / focus of the next stakeholder meeting will be and when it will be scheduled? I'm also curious if there will be any public engagement anytime in the near future for folks not in the stakeholder group? Thanks,	Good afternoon Assemblymember Woll, Thank you for continuing to engage with the study team, we appreciate your input. Prior to the next advisory committee meetings, we plan to host "pop-up" informational booths at popular locations to engage the public. The next Stakeholder Advisory Committee meeting is scheduled later in the fall. The team plans to share the draft preferred alternatives and screening criteria. With the input received from the advisory committees, the team will then share these with the public at an in-person public meeting. Additionally, the study team is developing interactive on-line tools to solicit public input on potential alternatives and the screening criteria. Updates are posted to the project website at www.jdnorthcrossing.com. The team is accepting input throughout the study process, so please share this website with your constituents. Best regards, Morgan	8/8/2022	M. McCammon	Advisory committee comment

8/8/2022	Alex Wertheimer	Re: [EXT] Second Crossing Scoping Dear People, I understand you are taking public comment on your scoping process for the "Second Crossing" analysis. I encourage you to have minimizing environmental impacts, particularly to the Mendenhall Wetlands State Game Refuge, as a major criterion in your site selection process. This wetlands area, already heavily impacted by development, is the ecological heart of Juneau. It is recognized as a migratory bird hot spot, as important habitat for juvenile salmon, and as one of the most popular hiking/walking areas in Juneau. As previous studies have shown, there are sites that have little or minimal impact on the wetlands, while still meeting other transportation goals. Please make sure that consideration of habitat preservation and ecological function is put front and center in your evaluation of options. Sincerely,	Hi Alex, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Kind regards, Jovie Garcia	8/9/2022	J. Garcia	Advisory Committee Comment - Purpose & Need
8/8/2022	Alex Wertheimer	Thanks, Ron and Margo, for your insightful comments. Ron is spot on that protection of the existing natural environment should be in the list of priority "Needs". Burying in under "Additional Goals" makes it seem like a secondary consideration. In the previous analysis of preferred crossings (http://www.jdnorthcrossing.com//documents/JDNC_Previous_Studies_Summary_Report_FINAL.pdf) impact on the environment in general and the Refuge in particular was a major theme of public comment, leading to the identification of crossing sites with no to minimal impact on the Refuge. I believe that the study team is taking public comment until September 30 at JDNorthCrossing@dowl.com , and have been told that they have received few comments that	Good afternoon Alex, Thank you for this input. I will share this with the study team. Morgan Revised Purpose and Need Statement shared online November 2022	8/8/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

		support environmental protection as a priority. So think about sending them a few words of encouragement as individual commenters. Alex				

8/9/2022	Brenda Taylor	Morgan et al, Thanks for sending this out. I have a few questions… - The maps that you had available at the Centennial Hall meeting were fascinating and informative. Is it possible to get electronic copies of them? - You mentioned that you'd be working on the criteria for ranking options, will they all be based off of the "needs" statements or will there be other criteria as well. I'm particularly interested in assessing impact to neighborhoods. Will choosing options become a matter of which neighborhoods protest most loudly or is there a way to generate more comprehensive understandings of neighborhood impact? Some questions that I'd consider (I realize that some are questions asked of individuals and others that are more broadly assessed): • If this proposed crossing were to go up in your front or back yard/view scape, would you still be in favor of it? • How much extra would you be willing to pay for a tunnel if it would not negatively impact any neighborhoods? • Which neighborhoods (where and how many) will be negatively impacted by this choice? Viewscape, increased traffic, changed drainage/erosion/wind, superseded right of way? Thanks, Brenda Taylor	Good morning Branda, Thank you for this input. I will share this with the study team. Morgan Revised Purpose and Need Statement shared online November 2022	8/10/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

8/12/2022	Bruce Baker	Ms Heidemann, Ms. Gallion, and Dowl Staff - The one-page attachment is my August 12th public comment letter on this subject. Please include it in the public record, and please include my name and address on all public notices regarding this proposed project. Thank you, See letter dated 8/12/2022	Good afternoon Mr. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and will add you to the project contact list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Morgan McCammon	8/12/2022	M. McCammon	
8/14/2022	Bruce Baker	Attached, for the public record, is my one-page, August 12, 2022 comment letter regarding the "Second Crossing." Bruce Baker See letter dated 8/14/2022	Good afternoon Mr. Baker, Thank you again for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Morgan McCammon	8/15/2022	M. McCammon	

8/14/2022	Linda Baker	I oppose a bridge across Fritz Cove between the end of the Mendenhall Peninsula and the vicinity of the North Douglas boat ramp and request that it be removed from consideration from the Second Crossing Study Process. ● It would require the longest and most expensive second crossing alternative, requiring a very costly new road down the Mendenhall Peninsula plus the huge expense of a long bridge. ● The travel distance for medical, First Responders, plus residents' work, shopping, etc. would be unbelievably long, especially if the current bridge is unusable for whatever reason. ● It would have a significant negative impact on Fritz Cove whales, sea lions, and other marine life. ● Hopes for the development of the west side of Douglas Island are doubtful because Juneau's population isn't increasing and many government offices are moving to the Anchorage area. Linda Baker	Good afternoon Ms. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and will add you to the project contact list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Morgan McCammon	8/15/2022	M. McCammon	

8/15/2022	Liz Ortiz, M.A. Archaeologist II	Good afternoon Morgan, The Office of History and Archaeology / State Historic Preservation Office received your documentation and request for comment on August 4, 2022. Following review of the PEL Study Purpose and Need Statement, and notes from the technical advisory committee and public meetings, our office does not have additional comments. We find the document satisfactory, and look forward to continued consultation on this project. Thank you for the opportunity to review and comment. Please contact our office with any questions or if we can be of further assistance. -Liz Liz Ortiz, M.A. Archaeologist II Review and Compliance Alaska State Historic Preservation Office Office of History and Archaeology Department of Natural Resources	Good afternoon Liz, Thank you for this input. I will share this with the study team. Morgan McCammon Revised Purpose and Need Statement shared online November 2022	8/15/2022	M. McCammon	Advisory Committee Comment - Purpose & Need
8/19/2022	Mike Stanley, Chair NDNA Second Crossing Committee	Dear Ms. McCammon and the JD North Crossing project team: Attached please find the comments of the North Douglas Neighborhood Association on the draft purpose and need statement that you circulated last week as part of the PEL Study. As indicated therein, NDNA, through its Second Crossing Committee, would welcome an opportunity to meet with you to discuss the PEL Study and issues identified in our comments concerning the identification of crossing alternatives. Please advise if you have any questions regarding these comments.	Good morning Mr. Stanley, Thank you for providing input. I will share this with the team. Best regards, Morgan McCammon Revised Purpose and Need Statement shared online November 2022	8/19/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

		Mike Stanley, Chair NDNA Second Crossing Committee See NDNA letter dated 8/19/2022				
8/19/2022	Teri Tibbett, BBNA	Hi Morgan!....Is it possible to get my comments to you over the weekend? It's been a crazy week and I'll have more time then. If not, I can rally to make it happen by tonight. Thanks! Teri	Hi Teri, Please get us your comments to us as soon possible. If you are able to get them in this weekend, we should be able to incorporate your feedback. Thank you, Morgan McCammon	8/19/2022	M. McCammon	Advisory Committee Comment - Purpose & Need
8/20/2022	Teri Tibbett, BBNA	Hi Morgan...Attached are my comments embedded in the attached document. Thank you for sending this out for comment. FYI, the Bonnie Brae Neighborhood Association is developing a survey for BB residents that will be completed for the next round of comment. Thanks! Teri See comments in the draft Purpose and Need document dated 8/20/2022	Good morning Teri, Thank you for your input. I will share this with the team. Also, thank you for letting us know about the survey. Best regards, Morgan McCammon Revised Purpose and Need Statement shared online November 2022	8/22/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

8/22/2022	Katrina LeMieux, NEPA Program Manager Alaska Dept. of Transportation & Public Facilities	Good morning, I apologize that this is a business day late but I was reviewing not only the PN Statement but also the comments that have been received to date (that I have been included on). My predominant comment is for the clarification of how a/this PEL study differs from the historic studies done in the past for this effort. It was clear in the responses received that there may be some level of misunderstanding on this point. A PEL Purpose and Need must be a statement of a transportation problem, which I think the team has presented in this statement; however, the feedback received is concerned that the study isn't prioritizing potential environmental impacts strongly enough. I think an effort should be made, directly with commenters and here forward on the project, to thoroughly explain this study's unique process and all the future opportunities and requirements for the identification of the LEDPA, and hopefully this will assuage some of this public concern about the assumed lack of prioritization of this topic. I apologize that I was not able to attend recent Alternatives Development Workshop as I was headed out of state that day. You may have thoroughly discussed all of these points with the public and they still feel the need to repeat their concerns, as it is important to them and as it would be to the project. This was just my only comment to the PN Statement provided for comment. Thank you, Katrina	Good morning Katrina, Thank you for the input. I will share this with the study team. Morgan McCammon Revised Purpose and Need Statement shared online November 2022	8/22/2022	M. McCammon	Advisory Committee Comment - Purpose & Need

8/26/2022	Katherine Russell	Hi there, I'd like to know a bit more on how a second crossing will impact wetlands? With more and more atmospheric river events having intact wetlands will be more important than ever. Where can I access environmental impact statements to review? I saw in the meeting notes from April 27 mention of "The University of Alaska Fairbanks has been undertaking research on wildlife conservation, in conjunction with the Audubon Society." Is this research specific to north Douglas? Where is it available? One of the concerns listed on the PEL fact sheet is "Congestion during peak periods on the existing Douglas Island Bridge." Many studies (such as https://ncst.ucdavis.edu/research-product/increasing-highway-capacity-unlikely-relieve-traffic-congestion) find that "adding road capacity fails to address congestion because it adds new drivers to the road and increases the overall distance driven" (https://environmentaldefence.ca/2020/09/15/why-building-more-highways-wont-make-your-commute-any-better/). What evidence is there that building a second crossing will alleviate congestion? Why is there a need for development on the west side of Douglas island? Per Alaska population data (https://live.laborstats.alaska.gov/pop/) the population of Juneau has stayed right around 30,000 since the mid-1980s. There is a well known and documented housing shortage in Juneau and across communities in SEAK (https://www.ktoo.org/2022/07/19/housing-identified-as-top-problem-for-southeast-alaska-	Good afternoon Ms. Russell, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and questions with the project team and will add you to the project contact list. Visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Additional Response Good morning Ms. Russell, We will do our best to provide answers to your questions. This Planning and Environmental Linkages (PEL) Study is the early phases of environmental review and all work being undertaken is pre-National Environmental Policy Act (NEPA) evaluation. The study includes preliminary data collection on existing conditions and an early evaluation of the potential environmental impacts of crossing alternatives. No NEPA process will be initiated during the PEL Study, but one may move forward after the PEL Study is completed as an action to commence implementing any project(s) recommended as part of the PEL Study. The memoranda documenting baseline environmental conditions and any analyses undertaken as part of the PEL Study will be made available on the study website: www.jdnorthcrossing.com. The study mentioned in the summary of the April	8/29/2022	M. McCammon	

		businesses/), but seem like many housing issues are related to seasonal housing needs, and tourism rentals (such as AirBnBs). I personally find Juneau a very difficult place to find affordable year round housing but worry that per the fact sheet "The potential for residential, commercial, industrial and port development at west Douglas Island" will fall prey to the same issues Juneau is already facing of housing and land being purchased for tourism purposes and leaving the same issues of unaffordable long term housing. That was a lot of words, but essentially my point is if the population of Juneau is not growing, why is development on west Douglas needed? And if west Douglas is developed, how will the same issues of unaffordable property and housing be mitigated? I'm sure all of my questions may be common ones, so it be great to get any more info if possible! I'm grateful for the work that many people are doing on this. Thank you,	27 Stakeholder Advisory Committee meeting was brought up by a representative from Juneau Audubon Society. That group would be the first place to check if the results are available publicly. It is not being completed as part of this PEL Study. One of the goals of the PEL Study is to develop a Purpose and Need statement, which outlines the needs of any project to come out of this study. The draft Purpose and Need Statement is currently being updated in response to feedback from the Advisory Committees, consisting of representatives of Federal, State, and Local agencies, community organizations, environmental organizations, business interests, and members of the public. We anticipate sharing an updated Purpose and Need Statement as part of our public outreach activities planned for later in the year. We are also planning on sharing preliminary crossing alternatives, and a high level evaluation of the impacts of the alternatives. This PEL Study is considering the north crossing, and is responding to available social, environmental, and economic information, including information from the City and Borough of Juneau on housing availability and potential future locations for housing development. As far as the need for development on west Douglas Island and how that could impact the housing market, this is not being evaluated by the PEL Study and will likely be considered by CBJ as part of future planning efforts. The team appreciates your input. Morgan McCammon			

8/29/2022		Madam Mayor and Assembly Members, thank you for your service. My name is Merry Ellefson and I live at 8170 North Douglas. I'm following up on emails I've sent on behalf of the North Douglas Neighborhood Association and our second channel crossing subcommittee. NDNA was actively involved in prior efforts undertaken to identify a crossing location in 2005 and 2007. Tonight we ask you to consider three points regarding the proposed Crossing to ensure there is a well-planned future for North Douglas and the community at large. ● First, we take no position on any Crossing Alternative. As we've said, our interest is to ensure that the Assembly and the public get the best information possible to make the best decisions for North Douglas and our community. ● Secondly, we ask that the CBJ North Douglas Comprehensive Plan be updated. ● Finally, as the only neighborhood directly and clearly impacted by the crossing, we ask that you please engage our Neighborhood Association in the planning process by directly including us- as provided by CBJ Ordinance 96-38am. Although many of you are new here, these requests are not:) The 2013 CBJ's Comp Plan states the need for a North Douglas neighborhood plan and a study of associated transportation elements. To quote in part: "The analysis of a transport system to North and West Douglas from a new bridge should be conducted in conjunction with a neighborhood planning effort." Guidelines for Sub area 8 state: "in the near term,	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		conduct a neighborhood plan for North Douglas to address" (and I summarize) traffic, transit, residential use, parks, pedestrian safety, open areas, access to water, recreation, among others. Recommendation #2 of the 2007 Sheinberg Report states the CBJ "work with the North Douglas neighborhood to evaluate and plan for the crossing's effect on the neighborhood which could be done along with development of a comprehensive plan for the North Douglas sub-area." You can look forward to an email with our crossing history and maps, CBJ correspondence and our collaborative and decades-long efforts around this issue. We are here to help and support a planning process before any crossing impacts North Douglas.				

8/29/2022	Laurie Craig	Hi, I've been following this issue but did not receive notice of the last public meeting. Please add my name to your mailing list. Thank you.	Good afternoon Ms. Craig, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and will add you to the project contact list. Additionally, visit: http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Morgan McCammon	8/29/2022	M. McCammon	
9/9/2022	Barbara Mecum	Good Afternoon, A group of concerned folks, Friends of Fritz Cove, are opposed to the second crossing alternative of a bridge from the Mendenhall Peninsula to the North Douglas Boat Launch Ramp Area as identified in the PEL Study. We have started the attached Petition, and share it with you now even though we continue to gain signatures. I have spoken directly with several assembly members about our concerns, and appreciate your calls back and listening. We request that this petition be added to the Public Record for this project. We would appreciate a response that you have received this email and that our comments/concerns have been added to the Public Record. Thank you, Friends of Fritz Cove Additional Comment	Good afternoon Barb, Thank you for sharing this petition and your concerns. We have added these comments to the Public Record. Please keep us updated on your efforts. Additionally, I hope you received the attached email, but just in case, I am including it in this response. On Saturday, September 17, members of the study team will be at Discover Eaglecrest Day, Eaglecrest Ski Area, from 10:00 am to 2:00 pm and at Safeway, 3033 Vintage Blvd, from 3:00 to 6:00 pm. The team members will be available to share information on the Study, answer questions, and hear ideas and concerns. Please share this information with anyone who may be interested. Thank you, Morgan McCammon	9/9/2022	M. McCammon	

		Hi Morgan, Appreciate your quick response, and the additional information on Sept. 17, sessions. Thank you, Barb				

9/9/2022	Michael Stanley, NDNA	Dear Ms. McCammon, Thank you for your patience in waiting to hear from our committee about a meeting. Several of our folks are traveling for parts of September and we've been trying to sort out availability. We've scheduled a committee meeting for this coming Monday, to discuss the PEL study, NDNA's concerns, and the logistics of a meeting with you. Based on travel schedules, it appears that sometime the week of September 26 would work best for a meeting. This will be after the public listening session you've scheduled for Saturday, September 17, but I anticipate that some of our committee will attend that, too. Please suggest a date, time, and place for a meeting the week of the 26th that works best for your team. Also, will the stakeholder comments that were due August 19 be available for review in the near future? We would be interested to learn what other groups are saying about the study and range of alternatives. Thank you. Mike Stanley	Good afternoon Mr. Stanley, The team would be available to meet to the NDNA Second Crossing Committee, and any other NDNA members interested, on Tuesday, September 27. When and where do you usually meet? The team is available to come to the group. We look forward to meeting with you and discussing your concerns. We hope to see as many members as are available at the Listening Sessions later this week as well. Thank you, Morgan McCammon Met with NDNA 9/27/2022	9/12/2022	M. McCammon	Advisory Committee Comment
9/9/2022	Winston Smith	What time and how? Additional Comment Unfortunately, I have a conflict. Hopefully, there will be another opportunity in the near future to engage. Thank you for the clarification. Winston	Hi Winston, On Saturday, September 17, members of the study team will be at Discover Eaglecrest Day, Eaglecrest Ski Area, from 10:00 am to 2:00 pm and at Safeway, 3033 Vintage Blvd, from 3:00 to 6:00 pm. The team members will be available to share information on the Study, answer questions, and hear ideas and concerns. Please share this information with anyone who may be interested. Thank you, Morgan McCammon	9/9/2022	M. McCammon	Advisory Committee Comment

9/10/2022	Thomas Gill	How do you join the session? What time?	Good morning, On Saturday, September 17, team members will be available to share information on the study, answer questions, and hear ideas and concerns at the following locations: Discover Eaglecrest Day, Eaglecrest Ski Area, 10:00 am to 2:00 pm Safeway, 3033 Vintage Boulevard, Juneau, AK, 3:00 to 6:00 pm Best regards, Morgan McCammon	9/12/2022	M. McCammon	
9/12/2022	Cinda Stanek	Hello, Could you please give me information about the "listening event" to be conducted at Eaglecrest this Saturday? What time? What will the format be? Do we submit questions and/or comments verbally or in writing? Any information you could give me would be very helpful. Thank you, Cinda Stanek	Good morning Cinda, On Saturday, September 17, team members will be available to share information on the study, answer questions, and hear ideas and concerns at the following locations: Discover Eaglecrest Day, Eaglecrest Ski Area, 10:00 am to 2:00 pm Safeway, 3033 Vintage Boulevard, Juneau, AK, 3:00 to 6:00 pm The format will be informal where anyone can stop by to learn about the study and have one-on-one conversations with study team members. You can ask questions and share ideas and concerns verbally or in writing at these listening sessions. You may also share your questions and concerns anytime through this email address or by contacting the study team directly.	9/13/2022	M. McCammon	

			Best regards, Morgan McCammon			
9/12/2022	Teri Tibbett, BBNA	Hi there! Would someone from your group be interested/able to attend (by Zoom) a Bonnie Brae Neighborhood Association meeting to present on the process for learning about or commenting on the PEL study? Most importantly, any upcoming meetings where the public can learn about the study or comment, etc. This would NOT be a meeting for BB residents to ask questions about proposed crossing locations, or provide comment. Thoughts? Teri	Good morning Teri, The study team would be happy to meet with the Bonnie Brae Neighborhood Association members. Please let us know when you have a meeting. We can outline the opportunities and processes for residents to learn about the study, ask questions, and make comments. Time permitting on the agenda, we can also take comments and answer questions. Thank you for the invitation. Morgan McCammon Met 10/26/2022	9/13/2022	M. McCammon	Advisory Committee Comment

9/16/2022	David Love	As a resident of N. Douglas, here are my submitted comments about the Proposed North Douglas Crossing: As was stated in the previous 2 studies: NO ADDITIONAL CROSSING IS NEEDED. Please scrap this project. Thank you!	Good morning, Thank you for sharing your input on the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Morgan McCammon	9/16/2022	M. McCammon	
9/16/2022	Sharon Taber	Will the information presented here be available in some easily accessible form to those Juneau residents unable to attend either of the Saturday presentations? Thanks! Sharon Taber	Good afternoon Ms. Taber, Tomorrow's Listening Sessions will be informal events where anyone can stop by to learn about the study and have one-on-one conversations with study team members. Team members will be available to answer questions and hear ideas and concerns verbally or in writing at these listening sessions. There will not be a formal presentation, and materials available at the Listening Sessions are also available on the project website, www.jdnorthcrossing.com. You may share your questions and concerns anytime through this email address or by contacting the study team directly. Best regards, Morgan McCammon	9/16/2022	M. McCammon	
9/17/2022	Julie Bednarski	Need a bench road if making more traffic.	Written comment received at the Listening Session			Listening session
9/17/2022	Mark Dale	I support any crossing to Douglas Island. I live at 6 Mile N Douglas Island. The Industrial Blvd and Mendenhall Pennisula options.	Written comment received at the Listening Session			Listening session

9/17/2022	Mike Spalding	Please build the crossing. Emergency services would build it themselves.	Written comment received at the Listening Session			Listening session
9/17/2022	Zack Jones	My preferred option is the tunnel. It is functional with low impact. Go under the roadway. Connect Fred Meyer to Eaglecrest.	Written comment received at the Listening Session			Listening session
9/17/2022		Cunningham preferred alternaives would connect with Egan Drive. I live on Fritz Cove Rd., and while I would love to see a bridge increase.	Written comment received at the Listening Session			Listening session
9/17/2022		I'm in favor of the Vanderbilt Hill option. This will give Douglas people better access to Lemon Creek/Fred Myer. This is most likely to reduce current rushhour traffic. If and when we go to a single high school, this will also reduce bus time for most students. Also, it gets too warm for Eaglecrest, the most viable ski location is up Lemon Creek.	Written comment received at the Listening Session			Listening session
9/17/2022		Stay away from the migrating bird refuge. Go with the least impact to ecology. Construction will be too disruptive anywhere along the built up areas.	Written comment received at the Listening Session			Listening session
9/17/2022		It would be nice to open up better access to North Douglas for future housing development. It also provides an alternative route in the event of a blockage at the draining way.	Written comment received at the Listening Session			Listening session
9/17/2022		I want the second crossing - Sunny Cove.	Written comment received at the Listening Session			Listening session
9/17/2022		Connect at Vanderbilt intersection.	Written comment received at the Listening Session			Listening session

9/17/2022		Access to Douglas Island, I do not believe Fritz Road can handle increased traffic. The curves are tight, and there are no street lights. Without defines curbs, walking on Fritz Cove at night is already somewhat dangerous without additional traffic. However, longterm we are very spportive of easier access to Douglas.	Written comment received at the Listening Session			Listening session
9/17/2022		A second crossing is critical for Emergency Management and Emergency Response. My preference would be by Salmon Creek/Hospital, with a 2nd choice being Vanderbilt Road. Do not build across the Wetlands to the extent possible.	Written comment received at the Listening Session			Listening session
9/17/2022		Don't want to break up the Wetlands. Infrastructure is there or more reasonable ar the hospital or Vanderbilt. Private hearing and zoning becomes a problem along with finding elsewhere.	Written comment received at the Listening Session			Listening session
9/17/2022		Thanks for the chance to comment. I would love to see an electric commuter ferry option from North Douglas boat launch area to the bay. Don't know that Im ready for a second bridge.	Written comment received at the Listening Session			Listening session
9/17/2022		Crossing at North end of the island, please. Port and Eaglecrest will really grow!	Written comment received at the Listening Session			Listening session
9/17/2022		The Sunny Point crossing is the most logical from an observational point of view.	Written comment received at the Listening Session			Listening session
9/17/2022		My preference is to keep Mandenhall Refuge intact, so prefer Salmon Creek access point. Aircraft Access Routes in low visibility means no super-structure protruding high. Protect existing N. Douglas residences. Not over the river mouth = too much fluid land and aircraft traffic that would be tough to build on and dangerous to traffic. Not atop Mend Pen. due to wildlife.	Written comment received at the Listening Session			Listening session

9/17/2022		Emergency floating bridge. The Army has them. I would support a bridge to the north end.	Written comment received at the Listening Session			Listening session
9/17/2022		I think this is a fantastic idea. Not just for safety, but for increasing access to housing and Eaglecrest. Thank you for conducting this study!	Written comment received at the Listening Session			Listening session
9/17/2022		Minimize visual impact to N. Douglas boat launch/Fritz Cove/Mendenhall Glacier viewshed. Increases mobility to/from Eaglecrest and N. Douglas boat launch.	Written comment received at the Listening Session			Listening session
9/17/2022		We need a second crossing as far out the road as possible.	Written comment received at the Listening Session			Listening session
9/17/2022		I think we would most definitely benefit from another bridge in the valley of course. By the airport, maybe tax us...	Written comment received at the Listening Session			Listening session
9/17/2022		I'm all for a second crossing to Douglas. I think a location near the airport/Mendenhall Pen. area would be ideal for future expansion of the Westside of Douglas, and better access for people to easily move from N. Douglas Valley without congesting more of the downtown/south Douglas area.	Written comment received at the Listening Session			Listening session
9/17/2022		Not interested in a second crossing. As a homeowner on N. Douglas. I live here because of the relative seclusion.	Written comment received at the Listening Session			Listening session
9/17/2022		Building a bridge/tunnel near Sunny Point seems rather silly as it cuts off 8 miles. Again, I feel that building a second bridge is not important for the health/economy of Juneau.	Written comment received at the Listening Session			Listening session
9/17/2022		I feel that a second crossing is not a necessity, and as a physician, it does not make sense from a medical economic sense. Tunneling to preserve	Written comment received at the Listening Session			Listening

		folks view while expense is the choice, I would make if we are willing to waste money.				session
9/17/2022	Cynthia Krehbiel	Good day, The fee for the JD Second Channel Crossing PEL study falls between $500K and $1M according to the RFP. What is the actual cost for this study? Thank you in advance for your reply. Sincerely, Cynthia Krehbiel Additional Comment Thank you for your reply and well-written explanation, Morgan. I will forward this friends and family that have discussed the cost with me. Sincerley, Cynthia Krehbiel	Good afternoon Ms. Krehbiel, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your question with the project team. The budget for this PEL Study is $1.5 to $2 million, funded by a partnership between the Alaska Department of Transportation and Public Facilities and the City and Borough of Juneau. The original RFP for contract support was estimated between $500K and $1M. It has increased as we have better understood the breadth of alternatives, public involvement need, and supporting analyses. In addition to contracted support, the project budget also includes State personnel. The goals are to explore potential crossing locations north of the Juneau-Douglas Bridge. The analysis conducted can be incorporated into a future National Environmental Policy Act (NEPA) process. We will add you to the project contact list. Please reach out if you have further questions or concerns. Morgan McCammon	9/19/2022	M. McCammon	
9/17/2022	Greg Capito	The population of Southeast Alaska including Juneau is in a long period of steady decline. So how do you justify spending massive amounts of public funds on this project in light of these declining population projections? Focus instead on operation, maintenance and management of existing highways including our chronically underfunded marine ferry system.	Good morning Mr. Capito Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		Wake up and look reality straight in the eye.				
9/17/2022	Karen Bogert	I live at five mile on the North Douglas Highway. I have several concerns. The first one is I see jets and airplanes come in and take off very close to the water in this area. Do our pilots want an obstacle near the airport? The second is the destruction of the designated wildlife management area. Hundreds of birds come here most likely for the fish. Do our tourists want to see this amazing viewpoint destroyed? The third is the burden to the average tax payer to build and maintain a bridge. Does the traffic demand warrant the expense? The commute is really not that long compared to commutes in the lower 48 and it is a beautiful drive. If a port will be developed in West Douglas could a commuter ferry go there? Finally this is the only home my grandchildren have known. Please don't destroy it. It would mean a great deal to me for my grandchildren's grandchildren to enjoy the Alaska we know and love.	Good morning Ms. Bogert, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

9/17/2022	Leah Heiman	Hello, I didn't make it to the listening sessions today so thought I'd email to share some concerns I've had over the years. My biggest concern is the negative impact of widened roads and increased traffic in currently quiet neighborhoods on either side. I have heard talk over the years of building a road through Mendenhall Peninsula either on Fritz Cove or Mendenhall Peninsula Road (where I live). A north crossing at the end of "MenPen" road for instance would greatly increase traffic on our narrow little road, destroying our quiet no-outlet neighborhood. It would likely require widening the road and taking property from homeowners along the road putting our houses closer to a wider, busier, faster road. Although Fritz Cove road is already wider, I'm concerned using that road would increase traffic on Engineer's Cutoff which is narrow and curvy. When Engineer's Cutoff is open as a pass-through to Fritz Cove in spring, summer and fall, traffic on Engineer's Cutoff increases quite a lot and it is more dangerous as as more vehicles zip around the narrow curves. I worry for the pedestrians and bikers I often see on the sides of that road. Widening the road to accommodate more traffic is a lousy option due to the negative impact on homes along Engineer's Cutoff. I hope you can find a way to get the road/bridge that's needed for emergency/safety purposes without negative impacts to existing neighborhoods or destroying the wild beauty of this area for further future development and growth. Don't "pave paradise and put up a parking lot" as the song goes.	Good morning Ms. Heiman, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

9/17/2022	Nathan Leigh	The alignment that goes down the middle of Mendenhall Peninsula is the best because it avoids the impact to Mendenhall tide lands and opens up the Mendenhall peninsula to develop more housing to help ease the housing shortage in Juneau.	Good morning Mr. Leigh, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	
9/17/2022	Rich Brenner	Hello, While I do have some concerns about impacts to migratory birds, I am very supportive of this project. We desperately need a backup plan in case the existing J-D bridge has problems. Another bridge would also shorten commute times to various activities. I encourage you to look at locations for the bridge that are as far to the north as possible, as I think that would shorten the commute for the most people. Best wishes,	Good morning Mr. Brenner, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

9/17/2022	T.J. Duffy	To the planners: I fully support a second crossing between Juneau and Douglas Island without reservation. Consistent with the map below, my preferences -- in order of preference -- are as follows: 4 - West Sunny Point. For the same reasons as above in #3 below. 3 - East Sunny Point. This makes the most sense, across the Mendenhall Wetlands in an area where boats cannot navigate, water is shallow and has the most land mass. Glacial rebound is raising the land in this area and Gastineau Channel is merely a trickle. 2 - Vanderbilt Hill. Same reasons as above. I am opposed to the following considered crossings for the following reasons: 1 - Salmon Creek. Traffic improvements would be minimal due to its proximity to the existing bridge. 5 - Eagle Crest/8 mile. - We might have to extend our airport runway in the future. 6 through 14. - Too much water, too much money. I feel the concerns for waterfowl in the Mendenhall Wetlands area are minimal as there would be wildlife concerns wherever a second crossing is contemplated. Wildlife will adapt, and people likely won't be driving cars in 50 years anyway. I rarely see waterfowl in that area anyway. Hunters can go elsewhere. They shouldn't be hunting there anyway.	Good morning Mr. Duffy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		Respectfully submitted,				

9/18/2022	Carole Bookless	Hi, I was unable to attend the workshop. How do I find out what options were discussed at the workshop? C. Bookless	Good morning Ms. Bookless, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I will add you to the project contact list. The meeting materials and a summary will be added to the website soon. Please visit http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

9/18/2022	Sandra Shaw	Hi, I'm writing to voice my thoughts on the N Douglas crossing being proposed. We've lived at N Douglas for 28 years. Yesterday in the Juneau Empire was the first time we've seen a map showing locations you're considering. The map should've at least had mile markers on it but didn't. That said, I can clearly see that at least 2 of the locations you're considering for the crossing would be extremely close to our property. We purchased our property 28 years ago for the quiet, rural area feel it offers, not to live next to a 2nd crossing. I can only imagine the worry and concern many other N Douglas residents now have as well, about a 2nd crossing being built next to their homes and properties, perhaps even having property taken from them through eminent domain. While I may not agree with a 2nd crossing, it's pretty clear that City and State officials are going to push it through one way or another, even though the majority of Juneauites have said no to it over and over again. So, to me, the question is how to build this in a way that least disturbs N Douglas residents with existing homes/property. The answer is to build it at the N Douglas launch ramp or just past that. There are no existing homes there that it would disturb. It may change the view for homes in the cove there but it wouldn't be built right next to their homes/properties. Granted, that location may come in more expensive but it's closest to backside of Douglas that officials want to develop for housing and a deep water port, which let's face it, is the primary reason this 2nd crossing is being pursued, yet again. It's also been mentioned that N Douglas launch ramp needs improvements to handle the increased usage so it could potentially all be done at the same time.	Good morning Ms. Shaw, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments, including the correction you noted, with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		If the 2nd crossing is built any further north, such as 3 1/2 mile, or Fish Creek, etc then eventually we'll see officials saying we need a 3rd crossing to handle traffic from a new deep water port or housing development on backside of Douglas. Building the 2nd crossing at or past N Douglas launch ramp would alleviate the eventual need for a 3rd crossing that will occur due to development. It would also reduce new traffic and the corresponding danger that will be generated from deep water port and housing development going by existing N Douglas homes. While it may be more expensive than other locations presently being considered, it would in the long run, save money and be closer to the new development the City and State want to pursue and cause less disturbance to existing N Douglas residents. Thank you for your time and consideration, Sandra Shaw A correction to my comments submitted....a sentence said "If the 2nd crossing is built any further north, such as 3 1/2 mile, or Fish Creek, etc then eventually we'll see officials saying we need a 3rd crossing to handle traffic from a new deep water port or housing development on backside of Douglas." I wish to correct that to read...."If the 2nd crossing is built any further south....."				
9/18/2022	Scott Novak	As a starting point, the preferred location would be between the airport and fish creek road. This location provides the greatest benefit to the public to facilitate commerce, recreation, emergency response and future development of North Douglas. While cost and other issues may make this location impractical, staying as close as possible to this site would be strongly encouraged.	Good morning Mr. Novak, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards,	9/19/2022	M. McCammon	

		Thanks,				
9/19/2022	Dave Hanna	I am writing in support of a North Douglas crossing. I believe the further north the better contrary to the last DOT study. I believe most folks would rather drive an extra mile or two if it was the choice between Egan Drive or the North Douglas Highway. Proximity to the West Douglas extension only makes sense for both residential and commercial purposes. If freight and fuel could eventually be brought in at North Douglas it would make sense economically and environmentally eliminating the truck traffic through downtown Juneau and shortening the delivery time as most the goods and services are for the main population base in the Mendenhall valley. In addition it would reduce the commute to the Eaglecrest Ski area and open up possibilities for better recreational boating opportunities perhaps separating the commercial tour users from the local users. Thank you for your consideration in this matter. Dave Hanna	Good afternoon Mr. Hanna, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

9/19/2022	Garett Paul	Hello, I would like to voice my support for a second crossing between the Juneau Mainland and Douglas Island. This is long needed for the economic growth, recreational opportunities, and developmental growth of Juneau. I'm a born and raised Juneauite and have seen a need for this crossing for a long time. My observed ideal location for this crossing is departing from the Sunny Point interchange and connecting near the (what use to be) Peone Farm on Douglas. In discussions with friends, family, professional peers and City management they feel the Sunny Point option is too close to the 1st crossing (Juneau-Douglas Bridge). I disagree. Sunny Point is Approximately 5.6 Miles from the J-D Bridge and lands relatively close (~1 Mile) to the Eagle Crest Intersection and approximately 3.6 Miles from the North Douglas Boat Launch, and 7.2 Miles from the End Of North Douglas Highway. In context, South Douglas Highway is only (roughly) 2.5 Miles in length before you get to Downtown Douglas/Sandy Beach. Sunny Point already has an interchange, granted some changes may be needed, but it already has an interchange. Any other location besides Sunny Point introduces some very challenging hurdles to overcome.... Those include, added length, more environmental impacts, added cost and the need for additional infrastructure to make the connection function. Other locations further north than Sunny Point are simply not logical. Having experience in public opinion and process, i know this team is likely getting a lot of Not In My Back Yard (NIMBY) input. The fact of the matter is	Good morning Mr. Paul, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		that you will not be able to avoid having this in someone's backyard. Please don't let the NIMBY response sway what should be easy and logical decisions. Sunny Point makes the most logical sense, unless of course we relocate Juneau's 1.6-Mile-Long Airport Runway and Mendenhall River. If you move the runway and the river, the possibilities are endless. Thanks for taking my comment. Garrett Paul				

9/19/2022	Kaia Rongstad-Paul	Hello, I'm writing in support of the second crossing from North Douglas for several reasons. As a resident of North Douglas, I'm keen on (maybe somewhat selfishly so) the shortened commute time to and from the valley. Currently all of the traffic funnels along the mostly straight two lane highway to get to and from the bridge. There are people driving along the road at 70+ MPH daily and I believe adding a second crossing may help cut down on some of that and that it could have the potential to cut down on some of the wear and tear that the current roadway gets. This will increase access to Eaglecrest, especially as they develop the area for more year round patronage, which is a positive for the city. A second crossing could (hopefully) lead to the development of additional housing areas out North Douglas and even around the north tip of the island where there is more buildable land. Lastly, adding a second crossing is necessary for safety. Not only would a second crossing increase the accessibility and response times for emergency responders/services, but it would give a second option should anything happen to the current bridge, such as a barge hitting it again to the point it's not safe to use. No one is going to want this in their "backyard" but I think the benefits greatly outweigh the cons and I hope that this does move forward.	Good afternoon Ms. Rongstad-Paul, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		Thank you,				
9/19/2022	Robert Heide	Good morning- My family and I live at 8270 N Douglas Hwy. I'm writing to comment on the proposed second crossing. I was able to see the proposed crossings and speak with someone during Saturday's Discover Eaglecrest Day. We purchased the house out North Douglas for many reasons, the foremost being the ability to	Good morning Mr. Heide, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/19/2022	M. McCammon	

		have a less busy and noisy retreat from the city. I noticed four proposed crossings that would directly impact the life we worked hard to make for ourselves; two of which were further north of our house and the other two slightly south; all four make landing on the peninsula of land that backs up to our property line. I am concerned that any of these four crossings will negatively impact our life, in several ways. The increased N Douglas Hwy traffic will make for more dangers bike rides with my toddler, less safe dog walks, and further degradation to our stretch of the road. Increased vehicle traffic will also increase the noise pollution- something which we already deal with due to the airport in close proximity. I am also concerned about the impact to the wetlands near our house. I have been on the fence about the second crossing but having seen these four proposals, I am overwhelmingly against it. I hope you take into consideration the direct and indirect impact this will bring to myself, my family, and my neighbors. Thank you,				

9/19/2022	Teri Tibbett, BBNA	Hi there! I heard the crossing choices would be listed today on the website. Are you able to send me the link? Thanks! Teri	Hi Teri, Thank you for reaching out. The materials that were shared at the Listening Sessions, including a map showing the ideas developed at the July 19 Alternatives Development Workshop, are posted on the www.jdnorthcrossing.com site on the Meetings page. Here is the link directly to the pdf document: http://www.jdnorthcrossing.com//documents/Boards%20for%20JDNC%20Pop-up%20Listening%20Sessions_v2.pdf We have a presentation to the Bonnie Brae Neighborhood Association as a meeting to be scheduled. Please let us know when you would like to have someone share with the group. Best regards, Morgan McCammon Met with the BBNA 10/26/2022	9/19/2022	M. McCammon	Advisory committee comment

9/19/2022	Thomas Gill	How do I access written information and maps for the current location options Tom Gill Additional Comments Tom, Thank you for sharing that information. We will look into the issue. If you could please, share what browser you are using. Morgan McCammon -----Original Message----- From: Thomas Gill Sent: Wednesday, September 21, 2022 5:13 PM To: Morgan McCammon Subject: Re: [EXT] Location sites Morgan none of those links work They show a table of contents and a map with colored lines Docuements has nothing. Any other ideas on how you can find out anything information at all Tom Gill	Good morning Mr. Gill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. The materials shared at the Listening Sessions, including a map showing the ideas for crossing locations we have heard so far, are posted on the www.jdnorthcrossing.com site on the Meetings page. Here is the link directly to the pdf document: http://www.jdnorthcrossing.com//documents/Boards%20for%20JDNC%20Pop-up%20Listening%20Sessions_v2.pdf. Other informational and background documents are available on the Documents page. Baseline data and environmental setting maps will be added this week. I will add you to the project contact list. Please reach out if you have any further questions. Best regards, Morgan McCammon	9/20/2022	M. McCammon	

9/20/2022	Teri Tibbett, BBNA	Hi again…Do you know if the next (fall/winter) public meeting will be before or after October 26? It looks like our next meeting will be October 26 (not Sept. 28). But if your next public meeting is before Oct. 26, then we may need to reconsider when our next neighborhood meeting is. Thanks for your patience with all these emails! Teri ----- Original Message ----- From: "TERI TIBBETT" To: "Morgan McCammon" Sent: Tuesday, September 20, 2022 6:07:41 PM Subject: Re: [EXT] Re: Reminder - Join us for the Juneau Douglas North Crossing PEL Study Listening Sessions tomorrow, September 17, 2022 Thank you Morgan! One last question, are there descriptions for the choices listed in the photo with the colored lines? Also, is it likely the crossing choices that cross the airstrip will actually be in the running? Are you available to be at the Bonnie Brae Neighborhood Association meeting (by Zoom) either on Wednesday, Sept.28 or Wednesday, Oct. 26? We may be cancelling the Sept. 28th, in which case it'll be the Oct. 16 meeting. Let me know! Teri Additional Comment Hi Morgan, Great! I'll add you to the agenda (first after approval of agenda and minutes). Below is the Zoom info, see you then!	Good afternoon Teri, The team will be available to present to the Bonnie Brae Neighborhood Association on October 26. Please share the time and meeting information. We are planning the next public meeting for mid-December. Sharing this information at the October meeting would be timely. Please send all the emails needed or feel free to call. We appreciate your involvement and input into this study. Best regards, Morgan McCammon Met with BBNA 10/26/2022	9/22/2022	M. McCammon	Advisory committee comment

		Teri				

9/21/2022	Gina R. Heffern	Good morning, I am a firm supporter of a second crossing between Douglas Island and Juneau; I live on North Douglas and would certainly enjoy an additional access point to Juneau. My biggest concern and goal for a second crossing is to reduce transit times for emergency services. Living far out North Douglas I often worry about the transport times for EMS to reach my family in the event of an emergency. I think this should be the highest priority for this project with the ultimate goal of making Juneau a safer place to live for our citizens that reside far from the hospital. For this reason I believe that a centrally placed second crossing would be of the highest benefit to the community. Many of these more central options (those between Vanderbuilt Hill and Salmon Creek) are also much shorter crossings which seem to be the most practical from financial, construction, and maintenance perspectives. Thank you for accepting comments.	Good morning Ms. Heffern, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards,	9/12/2022	M. McCammon	
9/21/2022	Rick and Lisa Currier	Hello, We are interested in the Juneau Douglas second crossing project. Please apprise us of public participation events and project updates. Regards,	See next response			

9/21/2022	Rick and Lisa Currier	Hello, Please include us in any updates or meeting announcements for a potential North Douglas Crossing. Additional Comments Thanks, Morgan, We appreciate your efforts and look forward to receding updates. We'll submit comments in a week or so. Regards,	Good morning Rick and Lisa, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We received both of your emails requesting to receive notice of public meetings, opportunities to comment, and project updates. I will add you to the project contact list. The study team welcomes comments any time, please send comments and questions to this email address. Additionally, visit http://jdnorthcrossing.com/ for the latest updates and additional information about the study, including future public meetings. Best regards,	9/21/2022	M. McCammon	
9/23/2022	Thomas Gill	Morgan Thank you very much for your reply I'm using a Google browser on an IPhone 13. Hope this helps In the meantime is there an office or a display room with second crossing information? Stay healthy Tom Gill	Hi Tom, I am including my colleague in Juneau on this reply. Nina is in the Juneau Office and is very knowledgeable about this study. She would be happy to set up a time for you to come by, view information, and ask questions. Here is her direct contact information: Nina Keller Horne Transportation and Environmental Planner DOWL - (907) 562-2000 | office (907) 865-1246 | direct nkellerhorne@dowl.com | email Best regards, Morgan McCammon	9/23/2022	M. McCammon	

9/30/2022	Matthew Robus	I would like to submit several concerns regarding the proposed "second crossing" between mainland Juneau and Douglas Island: • The area below the high tide line between the Mendenhall Peninsula and Salmon Creek, largely encompassed by the Mendenhall Wetlands State Game Refuge, is an area of extraordinarily high value for fish and wildlife resources and for public recreation. • In addition to being designated as a state wildlife refuge by the Alaska Legislature after a grassroots effort by Juneau's public, the Mendenhall Wetlands have been identified as an Important Bird Area by the Audubon Society in a national canvassing of bird habitats; wetlands of this nature and expanse are not found elsewhere in our region and the area serves an important role in the migration of birds to and from their northern nesting grounds. • This area serves year round as a heavily used recreation area for exercise, birdwatching and other nature pursuits, and is the most important migratory bird hunting area in the region. • The wetlands serve as important rearing habitat for fish and other aquatic species. In summary documents issued thus far, the PEL process has included a general concern for minimizing impacts to environmental resources as a second-tier issue; given the values of the Mendenhall Wetlands and the long-standing support of Juneau's public for the state refuge it would seem more logical to give the integrity of these wetlands the highest possible priority. Past work on a second crossing has garnered information on construction constraints that should be incorporated into the present effort. Rather than asking the public for data-free	Good afternoon Mr. Robus, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	9/30/2022	M. McCammon	Advisory Committee Comment - Meeting 2

		opinions on crossing routes it might make better sense to seek input based on known constraints and limitations. While a crossing that bisects the Mendenhall State Game Refuge might not directly disturb many acres, the disruption to bird and fish behavior will be significant, and buffers around the project would dramatically affect hunting in the most important waterfowl hunting area in the region.Based on my general understanding of the difficulties and expense of building a crossing through the refuge as well the uniquely high values of this wetland area I believe that the best and most feasible route for a new crossing would avoid the refuge altogether. A crossing at Salmon Creek or from the Mendenhall Peninsula to the northern end of Douglas Highway would largely avoid impacting the area I have concern for. Thank you for the opportunity to comment. Matthew Robus				

9/30/2022	Nancy Waterman	All, 1. How mature is the CBJ planning for a 'bench' road on north Douglas, an alternative to the existing coastal North Douglas Highway? The transportation system on Douglas, and an up-to-date adopted Master Plan for the new growth area at northwest Douglas should lead decisions on location of a north Douglas crossing location and the type of crossing. 2. Please give preference to: *crossing locations outside of the Mendenhall Wetlands State Game Refuge area, *environmentally significant areas and wildlife habitat such as Fish Creek. 3. How do we encourage energy efficiency in transportation with this new option? Priority to high occupancy systems (like the bus), provide for bicycles, provide for pedestrians including transfer stations to board the bus at each end of the new crossing. Thanks for your consideration,	Good morning Ms. Waterman, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and questions with the project team and added you to the project contact list. Best regards, Morgan McCammon Additional Response Good afternoon Ms. Waterman, Thank you for the thoughtful questions and insights. The project team will consider your suggestions. A bench road is one of the alternatives that the public asked to be considered during the Juneau Douglas North Crossing PEL Study to address traffic and safety concerns along North Douglas Highway. Previous studies and existing plans were considered for this study. A summary can be found on the project website: http://www.jdnorthcrossing.com/documents/JDNC_Previous_Studies_Summary_Report_FINAL.pdf The CBJ planning department should be able to tell you about the status of any ongoing planning efforts. Environmental conditions and baseline data are part of the review criteria for any potential crossing location. This PEL study will broadly evaluate alternatives to screen out any that do not meet certain requirements and/or criteria comprised of,	10/3/2022	M. McCammon	

			among other things, the impacts to the natural environment. Your suggestions for public transit are great. North crossing alternatives under consideration include facilities for pedestrians and bicycles. CBJ and Capital Transit would be good places to advocate for energy efficiency transportation in the Juneau area including on any potential future routes. Additional information about the PEL Study can be found on the website at www.JDNorthCrossing.com. Please reach out any time with further questions and input. Best regards, Morgan McCammon			

10/5/2022	Tom Gill	Nina Well I tried for about 40 minutes to find your office. I knocked on a lot of doors Tlingit Haida etc. The scary part is no one has heard about the DOWL group Even scarier no one knew anything about a second crossing. Maybe CBJ wants to surprise the town It's all so secretive Thank Tom	Hi Tom, I am sorry you were not able to find our office location. The address is 9085 Glacier Hwy, Suite 102 (ground floor). We are located next to Lyle's & Jensen's Home Furnishings. There are two ways to get to it. 1) From Glacier Hwy heading west, go past the home furnishings store and take a left right after the building. 2) From Jordan Ave, the driveway to the DOWL parking lot is just south of the home furnishings store (our parking lot is right behind the furniture store). Please see the pictures below to help you find the building. There is a sign next to the building on Glacier Hwy but it can be a little tricky to find it. Please email or call Nina if you would like to schedule a meeting. Her contact information is: Nina Keller Transportation and Environmental Planner nkellerhorne@dowl.com DOWL - (907) 865-1246 | direct Thank you, Message undeliverable from both Nina Keller's and Morgan McCammon's email addresses.	10/6/2022	M. McCammon	

10/18/2022	Carole Bookless	Please accept these comments on the Crossing options: Starred ones are worth consideration. Carole Bookless Resident of South Douglas South to North - *Bright green options. Either of these are okay if the land is available but neither address the issue of what to do if Egan or North Douglas Highway are closed and residents are stuck. *Light blue, pink and purple options are all acceptable provided those who own affected property sign off. Green, green, orange and salmon are rejected because they would destroy the wetlands. Purple, yellow and pink are rejected because too close to the airport. *Light purple and orange are okay if they go through the industrial area near Don Abel. This might make sense for large trucks from a new port on the west side of Douglas to get to mainland quickly on bigger roads. This would affect fewer Douglas and mainland residential properties. Property owners need to agree. Green, green, blue, orange and pink at Engineer's cut off are definitely rejected. The people who built homes here did not buy them to be on a busy industrial road. What is the point to driving that far north of the main population base? Natural areas would be negatively impacted.	Good morning Ms. Bookless, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Best regards, Morgan McCammon	10/19/2022	M. McCammon	

10/18/2022	Greg smith	Hello. Thanks for this. I just wanted to let you know none of the website links work in the email. Greg Additional Comment Thanks, Morgan. I should have thought to try from my phone - it worked there. None of the links are working from my state computer, so maybe it is an issue confined to this network. Anyways, thank you. Greg	Hello Greg, I apologize that you are experiencing difficulty with the links. Here is the link to the project website: https://www.jdnorthcrossing.com//index.html. If clicking on it does not work, please copy and paste it into your browser. Please let me know if you have any questions or comments about this study. Best regards, Morgan McCammon	10/18/2022	M. McCammon	

10/18/2022	Tom Gill	How come the Juneau public is kept completely in the dark about any of the proposed crossing sites You continually show the “area” but have never mentioned or posted a single site It’s a good thing that this crossing business will die on the vine as you have not followed the disclosure procedure outlined years ago and it will be Legally challenged and defeated for failure to properly inform This new crossing is fueled by an outside group for a crossing to open up development on West Douglas It has absolutely nothing to do with emergency access. If that was the case a Chunnel would already have been built 15 years ago where the traffic needs dictated the location site This is for personal greed not safety How come there is nowhere in town where you can obtain any realistic Proposal. You refer to websites that contain nothing but dates about the next meeting This is very very sad and unfair And just not above board. Get your head out of the sand and start being honest Tom Gill Additional response Morgan	Good afternoon Mr. Gill, Thank you for your input. The crossing ideas that the team has heard so far are on the project website https://www.jdnorthcrossing.com/. Here is the direct link to the ideas: https://www.jdnorthcrossing.com//documents/Ideas%20for%20crossing%20locations.pdf Meeting information, including presentations and meeting summaries can be found on this page of the project website: https://www.jdnorthcrossing.com//meetings.html I have attached the newsletter that was recently sent out. Please reach out by phone or email if you would like to talk with someone about specific concerns. Morgan McCammon	10/18/2022	M. McCammon	

		Thank you ver much. But I give up Those links go no where. And there is no accessible information in writing about discussions. There is a link with a map with 8 colored lines on it and that's it. No names of locations You must have magic links or know a code. I think accessibility is deplorable Tom Gill				

10/19/2022	Alex Wertheimer	Is the meeting open to the public who are not on the Committee. Alex	Good afternoon Alex, In order to receive input and perspectives from a variety of stakeholders, we encourage each group to have one primary representative contributing to the discussion on the Stakeholder Advisory Committee. We encourage the primary member to share materials with their respective groups, gather feedback to bring to the discussions, and to share outcomes. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801) to provide an opportunity for the public to learn about the current progress, preliminary alternatives and initial screening criteria, and share thoughts and concerns with the project team. More information on the study can be found at www.JDNorthCrossing.com. Please reach out to me or another study team member if you would like to discuss this further. Best regards, Morgan McCammon	10/19/2022	M. McCammon	

10/19/2022	Cody Salter (Stakeholder Advisory Committee Member)	My comment on the North Douglas Crossing is simply that the only true logical place to cross to North Douglas if you consider environmental and cost is to cross at the Vanderbilt intersection creating a Causeway the same way it was created to make Egan drive using riprap and dredged up silt. Of course a bridge would be required in the middle to allow the channel to still be used unfortunately a large house has been constructed in the past year or so in the ideal landing spot on the North Douglas side but the road could land a little north of that site. Some people think that isn't far enough out the road but in reality it allows the people living on North Douglas access to the valley with relatively short drive and get you very close to Eagle crest when coming from the valley and like I say it would be a very economical and environmentally friendly crossing but of course you can't keep everybody happy. Since Vanderbilt intersection has a working traffic light it would be very simple to add merge lanes and then it would be simple to add a roundabout on the North Douglas side of course all of this makes too much sense. Eric "Cody" Salter	Good morning Cody, Thank you for your interest in the Juneau Douglas North Crossing PEL Study, your comments on a crossing location, and rational. I have shared your comments with the project team. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Please share this information with your neighborhood association and circle. We hope to see you at the Stakeholder Advisory Committee on November 17 and discuss your thoughts and concerns further. Best regards, Morgan McCammon	10/20/2022	M. McCammon	Stakeholder Advisory Committee - Meeting 2

10/19/2022	Tom Gill	Morgan thank you soooo much for the links that actually work.! I was getting frustrated Thanks for putting up with my snarky remarks. I could not locate the DOWL office. Your assistant new to town said it was in an alley behind a furniture store After 53 yrs in Juneau I decided it was Jensens. A dozen store fronts later only 1 person had heard of DOWL and only 2 knew about a second crossing 😳! I would say 2 out of 5 people in Juneau are aware that a PEL study is going on. Big time need in the PR area! I housed many of the 1984 Study people It was fascinating maps fact sheets all over my house. It's interesting to look back with a 40 yr perspective At that time the clear choice was 3 East Sunny point because there were no neighborhoods You have an incredible task in front you The big question or dilemma is is for emergency egress or to plunder West Douglas. As a retired first responder I would say they favor a Chunnel @ sites 5 and 6. If you want to plunder options 7 -12 you will have so many EIS hurdles not too mention hunters and fisherman won't allow it. But if this was NJ and you want to develop (and don't care if it's practical Then go full Monty with option 14 As they said in '84 this train is leaving the station … do it 10 yrs or not at all! And in '97 The time to begin is now I don't think this will happen in our life time The financial estimates are not even realistic. $10 mill for a bridge? They can't even build a city hall for $35 Best of luck and thanks again Tom Gill Additional Comment Morgan	Good morning Tom, We are glad you were able to get to the information. Thank you for the substantive comments, I have shared them with the project team. Please consider attending the Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier Street, Juneau, AK). We will be sharing information about the current study progress, preliminary alternatives, and initial screening criteria. Word of mouth is a preferred way to hear about these kinds of events, so please share this opportunity with your circle. Best regards, Morgan McCammon	10/24/2022	M. McCammon	

		Thank you notifying me of the 12/12 open house. That's exactly whats needed - now! Unfortunately I will be out of town. But I will spread the word. Might I suggest also a large back page Friday 12/9 Empire Advertisement. I think you need to target the population that will be affected . Especially North Douglas Hwy, Sunny pt, Mendenhall Peninsula with some fliers. Involve KTOOPerhaps film some break out groups or at least capture a 10 minute summation of current status Best of luck. Tom Gill				

10/20/2022	Ron Somerville	Morgan, I pulled this info from the Internet pertaining to the Mendenhall wetlands. Twice I have raised the importance of this area to Alaska's fish and wildlife but the importance of protecting the area and minimizing the impacts of the crossing have not been recognized by the process. I think this is a major mistake on the part of the Department and those leading this effort. If you carefully examine the opposing position to the last crossing proposal you will find that damage to this small refuge was a major issue on the part of Juneau residents who opposed the proposal. Once again, I am requesting that one of the major objectives of this effort has to be minimizing the impacts on the refuge. Even those the acreage of this refuge are relatively small, because of the topography and availability of wetlands in SE Alaska, every acre becomes extremely critical to migrating birds in particular. Think this over and get back to me if you are able. If it is possible, we can meet with you at a time available to you and us. Thank you. Ron Somerville https://www.audubon.org/important-bird-areas/mendenhall-wetlands	Team met with Mr. Somerville and the MWSG on 11/17/2022 to discuss concerns	11/17/2022		Stakeholder Advisory Committee - Meeting 2

10/20/2022	Teri Tibbett, BBNA & Douglas Advisory Board	Hi Morgan…Thanks for sending this out! I'm currently out of the country and won't be in Juneau on November 17. Is there a way to participate remotely? Thanks, Teri	Good morning Teri, We will not have a remote option for this meeting. You are welcome to designate an alternate from both the Bonnie Brae Neighborhood Association and Douglas Advisory Board. Please let us know who those individuals would be. We will forward the invitation and meeting materials. Thank you, Morgan McCammon	10/21/2022	M. McCammon	Stakeholder Advisory Committee
10/24/2022	Emily Palmer	Please consider a second crossing between Douglas and Juneau at the Vanderbuilt intersection! A crossing here would not require another light or intersection on Egan! It could be a similar set up as the current bridge with a light on the Juneau side and a round about on the douglas side. Only having once access point for all of douglas has the potential of becoming a major disaster if the current bridge were ever to be out of service for a large amount of time. In my 8 years of living on Douglas, I recall the bridge being hit by a barge or boar at least once a year, often 2 or more times a year. It is scary to think that we are only one boat strike or earthquake away from being cut off from Juneau for months or years! A second crossing would increase safety and security for all of Douglas. It would also have the potential of being able to develop more land on Douglas for housing, which is something that CBJ desperately needs. We could also potentially look at developing a deep water port on the back side of Douglas that is currently unrealistic due to the distance to transport items from the back side to	Good morning Ms. Palmer, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Best regards, Morgan McCammon	10/25/2022	M. McCammon	

		other locations throughout Juneau. Please build a second crossing!!! Sincerely, Emily Palmer				
10/24/2022	Teri Tibbett, BBNA & Douglas Advisory Board	Hi Morgan… Ed Schoenfeld, Douglas Advisory Board vice-chair (cc'ed here), has agreed to attend the November 17 meeting on behalf of the Douglas Advisory Board. I'm still working to recruit someone from the Bonnie Brae Neighborhood Association! Please include Ed on correspondence for that meeting. Thank you! Teri	Good morning Teri and Ed, Thank you for sharing this. Ed - We appreciate your willingness to participate on the committee on behalf of the Douglas Advisory Board. I will forward the invitation to you. Please reach out if you have any questions. Best regards, Morgan McCammon	10/24/2022	M. McCammon	Stakeholder Advisory Committee

10/24/2022	Teri Tibbett, BBNA & Douglas Advisory Board	Hi again! Karen Larsen, co-chair of the Bonnie Brae Neighborhood Association (cc'ed here), has agree to participate in the November 17 meeting as well. Please include her in the correspondence as well. Please keep me in the thread so I can follow along. Thanks everyone! Teri	Thank you Teri and Karen. We look forward to talking with you on Wednesday. Just to confirm, you are looking for a presentation briefly updating the Association on the study progress and focusing on ways people can get involved in the process. Please let me know if you have other expectations. Teri - I will include you on all meeting documents. Karen - We appreciate your willingness to participate on the committee on behalf of the Bonnie Brae Neighborhood Association. I will forward the invitation to you. Please reach out if you have any questions. Best regards, Morgan McCammon	10/24/2022	M. McCammon	Stakeholder Advisory Committee
11/9/2022	Ketih Hermann	See attached for another crossing idea and commentary. Hoping you find this useful. Thanks, Ketih Hermann See comment dated 11/9/2022	Good morning Mr. Hermann, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and suggestion with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Best regards,	11/10/2022	M. McCammon	

11/20/2022	Robin Paul	As a 45 year plus resident of N Douglas, I have followed with great interest the decades long discussions regarding the N Douglas second crossing. Safety and emergency issues are my primary concerns, and I do firmly believe the Sunny Point interchange would best address this issue because it is the most viable and fastest build-out location. Sunny Point already has a lot of the needed infrastructure in place; the distance to the island is one of the shortest routes; it is a viable location as far as environmental issues; it has been identified and studied as an option many times in the past; and most importantly, it would be the fastest and most economical location to built. Furthermore, access to this crossing would be via an existing well-maintained and well-lit major road with little neighborhood impact as opposed to 2-lane roads in neighborhoods or roads that would need substantial improvements to accommodate anticipated heavier traffic. People may say that the Sunny Point location is too close to the current bridge; however, I would argue that any other location would delay into infinity there ever being a second crossing because of all the added span distances, environmental issues, costs, and construction EIS studies. Importantly, the existing interchange at Sunny Point is a major feather-in-the-cap consideration since off/on ramps are already established. The sooner a crossing is built would address our looming safety and emergency access issues, provide Douglas Island residents an alternative route to the valley/ airport areas thereby lightning the congestion on the existing bridge, shorten the	Good morning Robin, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and suggestion with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Best regards, Morgan McCammon	11/21/2022	M. McCammon	

		drive time to Eaglecrest Ski area for valley users, help jumpstart new development of N Douglas commercial and residential areas, and assist in getting more access to recreational activities for all Juneauites. I want a second crossing built and I strongly support Sunny Point as the best location. Thank you!				

11/22/2022	Karen Larsen, BBNA	Requested the map showing right-of-way for the potential bench road. Additional response Thank you Morgan, I found the answer to my question on map J. I was curious about the potential alignment of the bench road because one of the maps showed it joining nd hwy on top of Neilson Creek. It is hard to see on the map where the recreational designation ends in the area behind Bonnie Brae but I can see that the stream is protected and that it runs close to the lower homes on wee burn dr. It looks like the potential bench road would not come through our neighborhood or be adjoining existing residential property there. Thank you for getting back to me on this. I will share this info with our neighborhood association. Karen	Good afternoon Karen, Thank you for attending the Stakeholder Advisory Committee meeting last week. I know you requested the map showing right-of-way for the potential bench road. Steve misspoke when he called the area right-of-way. This potential bench road is referred to in the Juneau Comprehensive Plan (CDD – Comprehensive Plan 2013 – City and Borough of Juneau) as the "Douglas Bench Road Corridor" and is described as a "potential arterial with no specific alignment." Please call if you would like to discuss this concept or anything else. Best regards, Morgan McCammon	11/21/2022	M. McCammon	Stakeholder Advisory Committee - Meeting 2
11/22/2022	Sen. Jesse Kiehl	Is it possible to look further at the bench road concept in the context of the no-build alternative? I fear the PEL will face a lot of public pushback—as an incomplete look at the problem—if a bench road doesn't get some look. Thanks, Jesse	In-person meeting with Senator Kiehl on November 30, 2022 (Nina Keller in person, Steve Noble called in) Items discussed: - PEL study status - Upcoming meetings - Past discussions regarding a second crossing	11/30/2022	N. Keller, S. Noble	Stakeholder Advisory Committee - Meeting 2

12/3/2022	Steve Bradford	I don't support building a second crossing. There really isn't a social or economic purpose requiring a second crossing. However, if it is determined by political powers that a second crossing is needed, then I think the best location would favor placing the crossing as far north as possible. Specifically, I would recommend a new road be built down the ridgetop of the Mendenhall peninsula to tidewater at Fritz Cove and a bridge built across Fritz Cove landing in the vicinity of the North Douglas boat launch ramp. This could serve a dual purpose: 1) a second crossing to facilitate development of North Douglas and the backside of Douglas Island and; 2) offering needed shore protection via bridge approach fills to facilitate boat harbor infill development north of the Mendenhall Bar. Thank you for this opportunity to comment.	Good morning Mr. Bradford, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and suggestion with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current progress, preliminary alternatives, and initial screening criteria. Best regards, Morgan McCammon	12/5/2022	M. McCammon	

12/4/2022	Bill Leighty	Friends, I was unable to leave a comment at project website; button didn't work. Please have available for the 12 Dec open house discussion: • One or more maps of the north half of Douglas Island so we can contemplate the complete transportation access system for improved access to all of the north half of the island, showing: o Developable land, by ownership, on west side of Island; o Likely end of road in Hilda Creek area; o Eaglecrest lodge • A 100 year chart of predicted North Crossing area "isostatic rebound", i.e. "post-glacial uplift" (or range thereof) and of predicted sea level rise (SLR) (likely range), both with REF to present MLW datum. Show inundation progress as SLR overtakes isostatic rebound. • Geologic cross section of the alignments from about Super Bear IGA to one mile up Eaglecrest Road, so that we may understand the potential for a tunnel connection (a) under the airport runway and (b) under the SE end of runway 28 Thank you. Bill Leighty Director, The Leighty Foundation (TLF)	Good morning Mr. Leighty, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We are working on gathering the information you have requested. We look forward to discussing these issue with you at the Public Open House on Monday, December 12. Best regards, Morgan McCammon	12/7/2022	M. McCammon	

12/7/2022	Debbie White, Broker/Owner	As a former first responder who started with the Douglas Volunteer Fire Department, I feel a second crossing will save lives. The fire station on Douglas Island is not staffed, and there is no ambulance in that fire hall. Any number of incidents could leave Douglas Island without emergency services. Having one bridge to service nearly 1/3 the residents of the City & Borough of Juneau is an unreasonable expectation that nothing could go wrong. We were extremely fortunate that when a barge hit the bridge in August of last year there was not significant damage. About the same time the year before the bridge was also struck by a barge. The third time could be a charm. In addition, Juneau has a housing problem, and has had one for decades. My parents moved to Juneau in 1970 and left me with relatives until they could get settled. It was December of 1974 before I got to live with my parents again. Our community is about 32000 people. There are currently 26 single family homes and two attached homes on the market. Six of those single family homes are still under construction or not even started yet. The City & Borough of Juneau spent significant taxpayer funds to extend water and sewer services to North Douglas Highway because that is where the bulk of available, relatively easily developed land exists within the borough. Zoning changes are already taking place and developments planned for the area. This will only further increase the need for a second crossing. The wetlands, as they exist, will be fine. The bird population withstands pressures from a busy international airport as well as hunting, dog walking, and significant traffic parallel to the wetlands on both sides.	Good morning Ms. White, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We have received both emails with your comments. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards,	12/7/2022	M. McCammon	

		If no action is taken towards building the actual bridge, more funds will be squandered with even more studies until isostatic rebound allows us to build a road instead.				

12/7/2022	Debbie White, Broker/Owner	As a former first responder who started with the Douglas Volunteer Fire Department in 1990, I feel a second crossing will save lives. The fire station on Douglas Island is not staffed, and there is no ambulance in that fire hall. Calls to Douglas are automatically mutual aid, meaning the Juneau station and volunteers respond. Mid-day calls are especially problematic because most of their volunteers work on the mainland. Any number of incidents could leave Douglas Island without emergency services. Having one bridge to service nearly 1/3 the residents of the City & Borough of Juneau is an unreasonable expectation that nothing could go wrong. We were extremely fortunate that when a barge hit the bridge in August of last year there was not significant damage. About the same time, the year before, the bridge was also struck by a barge. The third time could be a charm. In addition, Juneau has a housing problem, and has had one for decades. My parents moved to Juneau in 1970 and left me with relatives until they could get settled. It was December of 1974 before I got to live with my parents again. Our community is about 32000 people. There are currently 26 single family homes and two attached homes on the market. Six of those single family homes are still under construction or not even started yet. The City & Borough of Juneau spent significant taxpayer funds to extend water and sewer services to North Douglas Highway because that is where the bulk of available, relatively easily developed land exists within the borough. Zoning changes are already taking place and developments planned for the area. This will only further increase the need for a second crossing.	See response above			

		The wetlands, as they exist, will be fine. The bird population withstands pressures from an international airport as well as hunting, dog walking, and significant traffic parallel to the wetlands on both sides. I'd imagine many birds would use the bridge as protection from the elements, or as a high platform for hunting like they do up and down Egan Drive. Thank you for your time and consideration.				

12/7/2022	Denny DeWitt	I would like to indicate my strong support for the North Douglas Crossing. A second connection to Douglas Islandhas been studied since the 1980s. The previous studies highlighted several reasons for a north crossing; they are even more critical today: • Congestion on the existing Douglas Island Bridge and North Douglas Highway is a traffic hazard all year long. • The health and emergency safety of Douglas residents is compromised by having only one point to cross the channel to the mainland services. • Emergency services can be limited if the current bridge or other points along Douglas Highway are blocked. • Juneau has a continuing housing shortage. One of the keys to helping provide additional housing is to open up residential land. It will also open up land that Juneau can use for commercial, industrial, and port development -- all of which are in short supply. Thank you for considering my support.	Good afternoon Mr. DeWitt, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/7/2022	M. McCammon	

12/7/2022	Jim & Jackie Triplette	Attention: Marie Heidemann, DOT&PF Project Manager Nina Keller, Assistant Project Manager Irene Gallion, CBJ Liaison Please see the above attachment for our 2nd Channel Crossing comments, preferred routes, pictures 1 – 4, Notes from the Audubon Society Stakeholder meeting and the Sunny Point Neighborhood Association comments. Thank you for your consideration of our concerns, comments and preferred routes for the 2nd Channel Crossing. Jim & Jackie Triplette See attachement dated 12/7/2022	Good morning Mr. and Ms. Triplette, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We appreciate the historic comments on the previous efforts. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/7/2022	M. McCammon	

12/7/2022	Peggy Ann McConnochie	A second connection has been studied since the 1980s but has yet to progress beyond identifying and recommending preliminary alternative alignments. The previous studies highlighted several reasons for a north crossing; they are even more critical today: • Congestion on the existing Douglas Island Bridge is a traffic hazard all year long. • The safety of users and concerns over emergency responses, whether fire or ambulance, in the event of a bridge closure, due to an accident on the bridge or to the bridge structure itself. • Juneau has a continuing housing shortage. One of the keys to helping provide additional housing is to open up residential land. It will also open up land that Juneau can use for commercial, industrial, and port development -- all of which are in short supply. These concerns still exist. They are valid reasons why another channel crossing is needed now. Additional Comment Thank you, Morgan. I am aware of the Monday gathering. Unfortunately we are unable to attend. That is why we wanted to make sure you received our comments.	Good morning Ms. McConnochie, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/7/2022	M. McCammon	

12/8/2022	Dave Ignell	Morgan, will your meeting on Monday at JACC be accessible via Zoom or Google Meet for listening and comments? Thanks, David	Good morning Mr. Ignell, The Public Open House will be in-person on Monday, December 12, at the Juneau Arts and Culture Center. There will be an online questionnaire that includes materials presented posted to the study website, https://www.jdnorthcrossing.com/, tomorrow. If you are unable to attend the meeting in-person, this is the best way to review the materials and submit feedback. This questionnaire will be open until January 20, 2023. Best regards, Morgan McCammon	12/8/2022	M. McCammon	
12/9/2022	Allen Shattuck	I strongly support a second crossing for several reasons. First is the safety aspect since there is no way for emergency vehicles to respond to Douglas Island if the bridge is closed for any reason and a prolonged closure would leave Douglas Island residents with no way to get back and forth to Juneau. Second is the convenience and reduction in pollution aspect. For people in the valley that want to ski Eaglecrest and for people on North Douglas that need to go to Lemon Creek or the valley, the second crossing will substantially reduce travel time and therefore also reduce vehicle emissions. In my opinion, the most logical crossing point is from Sunny Point as proposed in the most recent study. A crossing at this location would provide the most savings in travel time for the most people and should also be able to utilize the current Egan Drive overpass.	Good afternoon Mr. Shattuck, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	

12/9/2022	Bob Deering	I tried to respond to your survey but got a "database error". Rather annoying because I spent a considerable amount of time crafting my response. Not a great start...	Good afternoon Mr. Deering, Thank you for bringing this issue to our attention. The link has been corrected. Please try again here: https://www.surveymonkey.com/r/DXGV3M6. We apologize for the inconvenience. Best regards, Morgan McCammon	12/9/2022	M. McCammon	
12/9/2022	Bruce Griggs	To whom it may concern, I believe the second crossing, if built somewhere in the vicinity of fish creek road, is a mandatory project which will help insure the safety of Douglas residents and the future economic health of the entire community.	Good afternoon Mr. Griggs, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	

12/9/2022	Cordova Pleasants	Dear Reader, I'd like to add an additional letter of support for this project. The time is now to act and construct! Everyone in Juneau would benefit greatly from this second crossing simply by creating access. Juneau would see an increase in property value for N Douglas neighborhoods, promote residential development, improve Eaglecrest participation (it's possible to cut out as much as 30-40minutes of driving time!), trail access, reduce commutes and emissions, and promote future industrial development for the backside of Douglas and deep water port. There's no doubt the new crossing would have just as much traffic as our ONLY crossing! Please push this project through and get Juneau more connected, unified, and create a stronger Capital City through infrastructure! Best,	Good afternoon Ms. Pleasants, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	
12/9/2022	Corey Baxter	Hi, I totally support the North Douglas crossing. I believe it will help with alternate access for emergency vehicles, alleviate traffic on North Douglas and Egan Drive, bring more revenue to Eaglecrest, and will provide more areas of future development and will help bring growth to our community. Thanks	Good afternoon Mr. Baxter, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team.	12/9/2022	M. McCammon	

			Best regards, Morgan McCammon			
12/9/2022	greg capito	Just say no to this unnecessary project!	Good afternoon Mr. Capito, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/9/2022	M. McCammon	

12/9/2022	john brown	I'm in favor of the crossing to the Mendenhall Peninsula. It may not look that good to the downtown people, but in the long term a crossing in that area will provide opportunities for the community to grow and it will relieve pressure on the City Center. jb	Good afternoon Mr. Brown, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	
12/9/2022	Judy Ripley	My husband and I believe Erroll Champion pursued a second crossing for the Chamber of Commerce probably in the 1960s for all the reasons you lay out. It was a good idea then and now. Back in the day when Channel Marina burned down the area was closed to traffic for a time with no option for reroute. I believe in this project's need if funding is available!	Good afternoon Ms. Ripley, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	

12/9/2022	Lyndsey Zeller	I am in support of a second crossing between Juneau and Douglas. It's overdue and the lack of it decreases my venturing over there. Lyndsey Zeller	Good afternoon Ms. Zeller, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We will be hosting a Public Open House on Monday, December 12, 2022, 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). Come learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback with the team. Best regards, Morgan McCammon	12/9/2022	M. McCammon	

12/12/2022	Beth Weldon	The choice through the peninsula (purple) makes a larger transportation corridor. As development happens in North Douglas, the bigger circle will be more efficient than the smaller circles. Also it would open up city property on the peninsula and make more land available for housing.	Ms. Weldon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe Additional Response Hello Mayor Weldon, Thank you for attending the Public Open House on Monday, Dec 12. The study team appreciates you being there and offering your feedback. We understand that you had some questions regarding the PEL Study's Purpose and Need Statement. For projects and studies led by the Department of Transportation, Purpose and Need Statements are required by the Federal Highway Administration to be transportation specific. The Additional Goals section is how we are able to incorporate elements that are non-transportation values and concerns of the community. Please let us know if you would like us to reach out to your office to schedule a meeting with you and a member of the study team to discuss this or any other aspects of the PEL Study further. We appreciate how involved the City and Borough of Juneau has been in the process so far and would like to continue that collaboration. Best regards, Steve Steven Noble, PE	12/15/2022	T. Vittetoe, S. Noble	OH#2

12/12/2022	Brenda Taylor	I am most swayed by a plan that will make more affordable housing available in Juneau. I was very interested in and influenced by Senator Kiehl's explanation/ proposal. Re: bringing sewer to area between N Douglas and Bay View so that housing density could be increased there. That is far more convincing than opening up areas in W. Douglas for housing for rich folks. I understand that the bench road is a sperate project and from everything I have heard so far, it seems very worthwhile. That said, I would want to find a way to cross (at Sunny Point of Salmon Creek or closer to bridge). That has minimum impact on and maximum input from the people leaving adjacent to the new bridge. I'm also curious about (low income) residents of Lemon Creek and how to ensure that they are involved in this process. Could you go directly to them to ask for their input? Similarly, how are the native community adn tribal governments being involved? Both re: their role as landowners in N. Douglas, and their advice about how to connect with native community/ residents.	Ms. Taylor, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Dennis DeWitt	Strongly support. Preference is Mendenhall Peninsula. Opens development- commerce. Opens housing opportunity. Emergency access when the road is blocked as recently on Egan. Having added access is a public safety issue.	Mr. DeWitt, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2

12/12/2022	Don Habeger	First, I support another mainland/ Douglas Island crossing. Completion of a project is significant for Juneau's future. Second, a western project is preferred. The farther from the current bridge the more advantageous for saftey and commerce concerns. Third, a cost effective project is preferred but secondary to a western location. This is a balance between better community traffic flow, commerce enhancement, and overall cost.	Mr. Habegar, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Freda Westman	No second crossing is needed. The only congestion I have ever seen at the bridge is the Independence Day festivities in Douglas after the downtown parade. It is unnecessary. If the people that will benefit from the deep water port want to build a crossing it should be them buying the property and funding this. I built my home 25 years ago after purchasing the property and my home is dear to me. The peace I find there is everything to me. Tlingitaani is my homeland. How about first building up infrastructure on N Douglas Hwy before proceeding further with the crossing? No one past a certain point, maybe mile 3, has city sewer. Shouldn't that be taken care of first? How about widening the highway and putting bike paths? Shouldn't that be taken care of first? This process shouldn't be by populat vote because is that the best idea? Are you working with Central Council of Tlingit and Hailea Indian Tribal and Douglas Indian Association?	Ms. Westman, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2

12/12/2022	Joseph Roth	I do not feel that there is a need for a second crossing - an absolute waste of money from tax payers. We have consistent days where we have no air access and yet no one is saying build a second airport out Eagle Beach for services. The days of building stuff just because we can should end and we should think about what we really need long term for a community not based on what the Chamber thinks.	Mr. Roth, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Mandy Cole	Vanderbilt connection seems to balance wetlands impacts, minimize airport impacts, and contruciton costs.	Ms. Cole, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Margo Waring	North Douglas - bad idea: Destroy Fish Creek Park and salmon run and businesses about fishing. Bad ideas. Also mountain top removal put homes in jeopardy. Like Sunny Point alternative or Vanderbilt Hill.	Ms. Waring, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Mark Brown	The J-D crossing important for public safety. This is very important.	Mr. Brown, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2

12/12/2022	Ron Flint	The accident on Egan last week demonstrated another need for the crossing. Alternate routes when Egan is closed. The Mendenhall Peninsula route makes the most sense to me.	Mr. Flint, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Talli Vittetoe	12/15/2022	T. Vittetoe	OH#2
12/12/2022	Abram (EpiicPenguin) Leigh	PUBLIC OPEN HOUSE #2 Monday, December 12, 2022 | 4:00-6:00 PM did the meeting ever go live on zoom or in person? is/will there be a recording to watch?	Good afternoon Abram, Thank you for your email. Today's meeting is an in-person Public Open House from 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). It will be an opportunity to meet the study team and to learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback. Click https://www.jdnorthcrossing.com//outreach.html to view the meeting materials shared at the Public Open House today. Kind regards, Jovie Garcia	12/12/2022	J. Garcia	
12/12/2022	David Summers	AKDoT JD North Crossing, I fully support a second crossing to Douglas Island to be constructed now. TO BE CONSTRUCTED NOW is the main point! Juneau cannot afford to miss this opportunity now to construct the second crossing. North of the airport is my primary preference, or Sunny Point but not south of Sunny Point, then it	Good morning Mr. Summers, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/13/2022	M. McCammon	

		would just be too close to the other bridge. Thank you - David				
12/12/2022	Frank Bergstrom	Dear Dowl, CBJ, State of Alaska; It is with great regret that I was unable to attend tonight's public meeting. Nonetheless it is my pleasure to submit the following points for your consideration. 1. A second crossing is needed for safe access to or from Douglas Island in the event the current bridge is rendered unsafe for whatever reason. 2. Fuel, cargo, groceries, and goods and persons of all sorts transiting between Douglas Island and the remainder of Juneau must travel over the existing bridge. Due to a lack of travel options, this adds cost to all such goods. 3. Sporting and recreational activities, which are enjoyed on Douglas Island by the valley population must travel south to the existing bridge and then back north again. This adds expense, consumes fuel, and limits opportunities. 4. The birds on the Mendenhall Wetlands will survive and in-fact may benefit from a second crossing as hunters would be restricted within the road corridor. 5. ADFG, FWS, and NMFS biologists manage the birds on the wetlands and there is little reason to believe unmitigatable impacts to the refuge would occur due to the second crossing. I hunt the	Good morning Mr. Bergstrom, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/13/2022	M. McCammon	

		wetlands many many days each year. We can live with a second crossing. 6. The CBJ has spent millions of dollars on the pioneer road located near the end of North Douglas Highway. The purpose of the pioneer road is to promote development on Douglas Island. The second crossing is integral to ever realizing that ambition for which the populus has already invested so heavily. 7. I and a partner own a parcel on north Douglas Island. If it were instrumental in aiding development of a second crossing, it would be my pleasure to offer this property at rock bottom price - if not for free. Regards,				
12/12/2022	greg capito	This project is not necessary and a waste of money. Put the brakes on the planning process now.	Good morning Mr. Capito, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Best regards, Morgan McCammon	12/13/2022	M. McCammon	

12/12/2022	Malcolm Menzies	Ladies & Gentlemen, The crossing is needed for growth and much more . I favor a crossing at the Lemon Creek intersection. It requires one brigade (it is slight) and slopes that are flat and reflect a crossing within the flats. Sincerely ,	Good morning Mr. Menzies, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Best regards, Morgan McCammon	12/13/2022	M. McCammon	
12/12/2022	Nathan Leigh	Your zoom link for the public meeting is not working Nathan	Good afternoon Nathan, Thank you for your email. Today is an in-person Public Open House from 4:00-6:00 p.m., at the Juneau Arts & Culture Center (350 Whittier St, Juneau, AK 99801). It will be an opportunity to meet the study team and to learn about the current study progress, preliminary alternatives, initial screening criteria, and share your thoughts and feedback. Click https://www.jdnorthcrossing.com//outreach.html to view the meeting materials shared at the Public Open House today. Kind regards, Jovie Garcia	12/12/2022	J. Garcia	

12/12/2022	Rich Brenner	Hello, I am out of town at the moment, but would really like to see the updated proposed routes and information if you could please pass that along. Thank you,	Good morning Mr. Brenner, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. The materials that will be shared at the meeting this afternoon are posted to the website here: Southcoast Region Project, Alaska DOT&PF (jdnorthcrossing.com). There is a short survey for providing feedback. Alternatively, you may send your comments to jdnorthcrossing@dowl.com. Please let me know if you need any assistance. Best regards, Morgan McCammon	12/12/2022	M. McCammon	
12/12/2022	Scott Jeffers	Thank you for the email, but it does a little good with only a few hours lead time. Unless today's date was a typo and the 17th is the real date of the open house #2. Or maybe I'm missing something. Thanks, Scott Jeffers	Good afternoon Mr. Jeffers, Thank you for your email and noting the error. The meeting was an in-person Public Open House yesterday, December 12. Please visit the website at https://www.jdnorthcrossing.com//outreach.html to view the materials shared, including the current study progress, preliminary alternatives, and initial screening criteria. We welcome you to share your thoughts and feedback through the survey or by contacting the study team at jdnorthcrossing@dowl.com. I apologize for any inconvenience. Kind regards, Morgan McCammon	12/13/2022	M. McCammon	
12/12/2022		Comment	Written comment received at Open House #2			Open House #2

12/12/2022		How do you balance the difference in votes/ suggestions coming from those that live in these areas vs. just overall Juneau, or people less affected by the bridge? You currently count all comments the same, but I think the local residents of N. Douglas and other tie in spots should get more say. How will CBJ afford additional sewage, road maintenance, plowing, and police/ fire service when N. Douglas is either developed, or more cars are using the roads leading to crashes? Will the construction be able to handle vehicle pollution in an advanced way or is it just a bridge as they all are and no innovation? Why don't we spend this money to replace Juneau culverts that are horrible for fish passage? Buy more plows, employ more people, or fund our teachers for once? This is such a waste, again.	Written comment received at Open House #2			Open House #2
12/12/2022		A design worth supporting should protect the refuge and Fritz Cove Habitat; protect the residential areas along ND history. So Mendenhall Pensinsula route should be lowest, and Vanderbilt Hill route should be highest.	Written comment received at Open House #2			Open House #2

12/13/2022	Barb Lake	Hello, After the Open House last night I had an additional thought about the project I had not considered before. It would be helpful to have a noise and light pollution study done on the bridge wherever it may end up so current residents will have an idea of what their current view will change to. I'm also wondering if the lighting that would occur on the bridge would also be installed along the N. Douglas Hwy and how traffic would be alleviated if new housing communities are built and yet the only road does not allow for much passing and the current speed limit is 45. Would these things change? -- Thank you,	Good morning Ms. Lake, Thank you for your interest in the Juneau Douglas North Crossing PEL Study and for attending the Open House last evening. I have shared your comments with the project team and am working to get answers to your questions. Best regards, Additional Response Good morning Ms. Lake, Thank you again for attending the Open House, we appreciate your input. Noise, lighting, and improvements to the road network will be assessed at a planning level during this PEL phase as required to compare and contrast alternatives. A detailed analysis of potential noise or light pollution and viewshed impacts would occur only if additional funding is available to begin the environmental documentation phase after the PEL is completed. The environmental phase would also include recommendations on improvements needed to the existing road network to accommodate a potential north crossing. Please reach out to the study team if you would like to discuss these issues further or if you have any other comments. Best regards, Morgan McCammon	12/13/2022	M. McCammon	Open House #2

12/13/2022	Hayden Garrison	Hello JD North Douglas Crossing Group, Thank you for the townhall meeting last night. I was able to hear many different thoughts on the topic and it was very informative. I gave myself a night to sleep on it before I gave my thoughts. Sorry if it gets lengthy!! Born & raised in juneau for almost 50 years. I love Juneau and will never leave. Even if they try and force me. 😊 I moved 3 years ago. I used to live down town for most of my life and I also supported the crossing back then even though it would be a wash where to use it or not because of being down town. My 1st suggestion would be to show "the water ways" part of the map that has more color or lines on them. I would love to see what the water ways look like at Low Tide, Medium-Low Tide, and High Tide. Right now, the maps look like the water way is massive at Vanderbilt to the North Airport, but they are the lowest & skinniest navigable part of the channel. This might help people understand it better. It is very deceiving. Crossings: Eagle Creek: Defiantly Not. No point to spend that kind of money and not get a big enough gain on access to ND (North Douglas) Bridge would have to be just as big as the one we have. Salmon Creek: Still No. For the same reasons as Eagle Creek. Maybe not quite as big of bridge because you are on the north/west side of the	Good afternoon Hayden, Thank you for your interest in the Juneau Douglas North Crossing PEL Study and for attending the Open House last evening. I have shared your comments with the project team and added you to the study email list. We appreciate your feedback. Best regards, Morgan McCammon	12/13/2022	M. McCammon	Open House #2

		barge area. But still no. Twin Lakes: This one still makes no sense to me and no one had any info of why here this last night. The only thing I can think of is the access on the ND side. Vanderbilt: This would be my #2 Vote: I THINK, the only possible advantage of this one over Sunny Point is that it might be out of the hunting/wetlands largest usage area. Not that matters to me, but just trying to be nice. Sunny Point / Walmart Over Pass: This would be "MY #1 VOTE". I would love to hear it called a different name and not Sunny Point. This to me makes it feel too close to sunny point and those people already are complaining enough. (Because no one likes anything in their back yard). North Airport: This is a "Non-Starter" Tunnel???? The cost and upkeep seems way too high and problematic. Mendenhall Peninsula: This seems like a pipe dream. The cost seems astronomical!! The people would never vote for the cost!! Another bridge to nowhere!! If we could not get the votes last time for a crossing because of cost, how would we do it on this extravagant one. Back to the #1 Vote at Sunny Point: Again, It really needs a New Name!! (These are all my thoughts and what I believe that I know) • This is the "No Brainer" to me. The infrastructure is already there on the Juneau side.				

		o I am open to where it hits land on the Douglas side. Not sure where is the least impactful spot. o I do understand that they will have to buy some people out of their Property/homes. I think you have to do that for many projects around as places get bigger. This is sad, but this is also life and sometimes there is no choice. ☹ • I think this gets you the biggest bang for your buck!! And possibly the highest use out of all the other crossings. • Bring water, sewer, power, phone, and internet. IT would be nice to connect the rest of Douglas to the "full" system of utilities and a backup for some systems. • As to the crossing itself. I can't see Coast Guard or army core or whoever is going to dredge again. We need to get that letter from them to say that they will not be dredging in the future. This will make the bridge part smaller and lower. o I think an Over-Sized Culvert would work just fine. Over-Sized meaning 20' high at flood tide. Almost looking like a wildlife land bridge or tunnel kind of thing. I might not be explaining that very well. § Maybe 20' is even too big. Not sure what it should be. o Seeing options would be greatly informative. o Also seeing what the costs would be for these options would be interesting and informative. § Maybe break it down. Show what the different costs would be for the bridge part. And what the cost options would be for the part for the connection from the overpass to the bridge across the wetlands. o We know there will be many more smaller culverts for the creeks and drainage. The Upper North Douglas Bench Road Project: • I do know that the upper ND bench road project is					

		not part of this. But it is nice to see it in the drawings and understand the connections to it for future use. • I think showing the bench road and the many possible connections to ND Highway is how we get more people on board so it does not feel like it is in "My/Their Back-Yard". This might show the least impact on the ND Residents and why they live out there. • With using the Sunny Point crossing, You could start building the bench road from the middle rather than the harder south end side. o Make your start straight across and then go west towards the Eaglecrest Road. I think that would be the first direction I would go. • I think that the west leg "phase 1" could be start to be built with a pilot road and contractor could start building homes or even subdivisions off of that road. I think that is all I have for now. Sorry for rambling on. I like to have lots of info and I don't mind sharing what I think. It just gets more thoughts and info out there to come up with a possibly even better plan.. I THANK YOU Again for all your hard work and help in this informative process!! :~} Thank You & Stay Safe!!				

12/13/2022	Swampy	Please send me link and pdf reader info for crossing	Good afternoon, Thank you for your email. Please visit the website at https://www.jdnorthcrossing.com//outreach.html to view the materials shared at the Public Open House, including the current study progress, preliminary alternatives, and initial screening criteria. We welcome you to share your thoughts and feedback through the survey or by contacting the study team at jdnorthcrossing@dowl.com. Kind regards, Morgan McCammon	12/13/2022	M. McCammon	
12/13/2022	Ted Quinn	To whom it may concern, As a resident of Juneau for over 50 years I have always felt a second crossing to Douglas should be achieved. Of course, for all the obvious reasons, health and safety, economic development as well as environmental. It just makes sense. I would prefer a second crossing Northwest of the Juneau airport. Either from Industrial Boulevard or over the top of Mendenhall Peninsula. And please note, I live at the end of Fritz Cove Road and have hiked the Engineers Cutoff Spur Road to Fritz Cove road trail many, many times. You can say I am not a NIMBI. Both alternatives would allow for the least amount of impact and could enhance this end of the wetlands dramatically. I would suggest the marine transit and access issues of the Mendenhall River be taken into consideration as it is a route used extensively for larger vessels needing to be pull up onto the hard for maintenance. The Smith yard is crucial and should not be blocked. As well, the dredging of the	Good morning Mr. Quinn, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/14/2022	M. McCammon	

		"bar" should be included for several reasons. Dredging to allow for better passage at lower tides for fishing, pleasure and commercial vessels as well as fill for the crossing. Similar to what you did with Egan Drive. It could be a win/win for all of Juneau if it is done correctly. Please put me down as a supporter of a second crossing. Thank you for your time.				

12/14/2022	Abram (EpiicPenguin) Leigh	mostly i am trying to answer these questions below. ---------- Why a new bridge? What does the new location serve that the old bridge does not. Is the committee expecting to build housing or business on north douglas? Will these people actually commute using the bridge or will they just use the old bridge? (Valley Housing to downtown work etc..) What is the data to back this up? IE: if housing is developed on north douglas they would have to work in the valley for a new bridge to see any traffic. and if business is developed on north douglas then they would have to work in auke bay for the new bridge to see use. if both are developed, why not just live and work on douglas/north douglas. If the question is solely about traffic, what about a Roundabout? or right turn only for Juneau side bridge intersection? It seems most traffic congestion is on the juneau side of the bridge, at the stop light. What does the traffic data say? Could the old bridge be expanded to 3-4 lanes on top and move the pedestrian and bike path underneath the bridge and connect it to the existing tourist walkway?	Good morning Mr. Leigh, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and questions with the project team and am working on getting answers. Best regards, Additional Response Good afternoon Mr. Leigh, Thank you for your interest in the Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) Study and sharing your thoughts and questions. The purpose of this PEL Study is to identify ways to improve the connection between Douglas Island and Juneau. The secondary purposes are to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption. An improved connection to Douglas Island should address the following needs: • Alternate access and transportation infrastructure resilience • Decrease traffic pressure on Douglas Island Bridge and its intersections A north crossing should also strive to meet these additional goals: • Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities. • Enhance and protect the public health and	12/16/2022	M. McCammon	

			safety of travelers and the communities that transportation facilities traverse and serve. • Transportation improvements should avoid, minimize, and mitigate impacts to the environment and to residential areas. • Transportation improvements should maintain the visual, cultural, and scenic identity of Juneau and Douglas Island. As part of the analysis, the study team is developing an origin-destination study utilizing four months of GPS data to model traffic patterns. We expect this analysis to be complete in February 2023. Future evaluation of detailed alternatives will include design details like possible intersection configurations. One of the preliminary alternatives is a Downtown alternative. This alternative is located next to Douglas Island Bridge and connections for both the existing bridge and the new bridge will need to be evaluated as part of the screening process. Also, a no build option is carried through the PEL study. The study team invites you, if you have not done it already, to complete our online survey (https://www.surveymonkey.com/r/DGDT6PT) to comment on the preliminary alternatives and the screening criteria. Please visit our website (https://www.jdnorthcrossing.com/) for more information. Feel free to reach out if you would like to discuss anything further or have additional questions. Best regards,			

			Morgan McCammon			

12/14/2022	Jim Dorn	Here are a few thoughts and observations: 1) The Transmission Lines Within the Study Area figure (Figure 2) didn't include any of the sewer force mains or water transmission mains that cross Gastineau Channel. 2) The Species Habitat Map (Figure 5) doesn't show the full extent of king crab habitat in Fritz Cove. Juvenile king crab are frequently caught in pots in the same area shown for dungeness crab particularly during late spring. In fact in the early part of the year there will be more juvenile king crab in dungeness pots than dungeness crab. 3) The Streams Used by Anadromous Fish Map (Figure 3) shows a small creek at about 11 mile that is shown as a "Stream Where Anadromous Species Have Not Been Documented". In 2021 I observed approximately 200 pink salmon in this stream. In 2022 there were none observed. Salmon in this stream have just not been documented by ADF&G, but they are there. I'll contact ADF&G about cataloging this stream next time I see salmon in it. 4) Each summer kayak tours leave the North Douglas boat ramp and paddle towards Fish Creek. Over the course of the summer there are literally several thousand tourists that take this tour. Should this be considered as part of the screening process? 5) During the peak of the coho and king salmon there are regularly 50 to 100 boats in Fritz Cove targeting returning salmon. Should this be considered as part of the screening process? 6) During the winter there are frequently large rafts	Good afternoon Mr. Dorn, Thank you again for your comments and questions. At this phase, the study team has pre-screened the crowd sourced ideas for crossing locations as shown on this document, Ideas for crossing locations we have heard so far (jdnorthcrossing.com). This pre-screening led to the eight preliminary alternatives shared at the Public Open House on December 12, shown here, Southcoast Region Project, Alaska DOT&PF (jdnorthcrossing.com). The study team is currently applying Level 1 screening to these eight preliminary alternatives. The two-step screening of the preliminary alternatives is based on the purpose and need statement, additional goals, and other considerations (including the natural environment, social impacts, housing, economic impacts, safety, cost, and public support). Alternatives remaining after the Level 1 screening will be considered “detailed alternatives”. Alternatives that do not pass Level 1 screening will not advance for further alternative development or evaluation. The study team is aware of the sewer force and water transmission mains crossing Gastineau Channel and will consider them during the development of the alternatives. We are also considering the recreational uses (including harvesting and tourism) within the study area. Thank you for sharing your knowledge regarding the king crab habitat, the sea lion and humpback movements, and the observed pink salmon with us. As part of this study we conducted a desktop review and used the habitat information shared by ADF&G and other agencies. Any project that might	12/14/2022	M. McCammon	

		of up to 100 sea lions in Fritz Cove along with humpback whales. Should their use of the area be considered as part of the screening process? It would be good to let the Public know where you are in the Alternative Screening Process, I am confused about where you are at in the process. One of the work products of "Pre-Screening" is "Elimination of Alternatives that are not feasible based on professional judgement and available data". So, since no alternatives have been eliminated I guess you are still in the "Pre-Screening" process. People at the December 12 open house led me to believe the next step was Level 1 Screening and that Pre-Screening was not to eliminate any alternative. Some clarification of where we are at would be good. Thanks, Additional Comment Thanks for getting back to me so quickly. I'll be looking forward to the Level 1 Analysis of Alternatives when it is ready. There are some alternatives that appear to me to be "fatally flawed" that could have been eliminated during the Pre-Screening Process. However, I understand the need to fully consider all alternatives at this early stage of the planning process. Thanks again for your quick response.	result from this study would conduct more in depth impact analyses and surveys. Please let us know if you would like to discuss your concerns further. Best regards, Morgan McCammon			

12/14/2022	Kenneth Gill	Hello JDNC, I would just like to contribute a couple of suggestions. 1. Use land that is either Municipal and/or State. 2. Select location based on widest coverage for community access. i.e: similar idea to large well planned (traffic) cities , creating an outer ring road e.g. Phoenix Highway 101. 3. The most realistic option - using Industrial Boulevard to second bridge connecting to Municipal Land on Douglas Island. I would take serious consideration in designing a bridge that would minimize the environmental disturbance to natural habit of Mendenhall Wetlands. Sincerely	Good morning Mr. Gill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/14/2022	M. McCammon	
12/15/2022	Chuck Pilcher	Have you considered a “Gibraltar Option” for the North Douglas crossing?https://youtu.be/cItlDD_0NJk Yes, there are pros and cons and I’m not advocating for or against it, but I‘d like the assurance that the option has been considered.	Good morning Mr. Pilcher, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comment and question with the project team and am working on getting an answer. I have added you to the project contact list. Best regards, Morgan McCammon	12/16/2022	M. McCammon	

12/16/2022	Jim	Jim called noting that he was not able to attend the Open House on 12/12/2022. He asked for discriptions of the alternatives being considered. I shared the website and talked through the alternatives spefically on North Douglas. He offered the comments that his preferred alternative is a causeway with culverts for water flow extending from Industrial Blvd. He said a causeway would be the cheapest option and a bridge would be a waste of money. He said that dredging the channel would never happen but acknowledged that this would be a designation from the Federal government. I reitereated that he should visit the website for the most up to date information. He asked when the next open house would be. I shared that we would host the final open house in spring 2023.	Phone conversation	12/16/2022	M. McCammon	

12/18/2022	Rick Shattuck	I am strongly in favor of finally building a North Douglas Crossing. This project is badly needed for public safety concerns. It will improve emergency response times to much of the North Douglas neighborhood. It will provide an alternate transportation route should there be a closure of the current bridge or of Egan Drive (especially at the Salmon Creek retaining wall area). It will reduce driving distances, especially important when road conditions are poor. It will provide an alternate route for heavy transportation (trucks, buses) that create safety (and quality of life) concerns on North Douglas Highway The project will also increase access to and from North Douglas. This will enhance recreational opportunities for much of the community. It will improve transportation efficiency, and it will improve access to areas of potential growth in North and West Douglas. The legislation that created the Mendenhall Wetlands Refuge had the foresight to provide for transportation corridors through the wetlands. In terms of route selection, it seems pretty clear that the crossing will be most functional if it is as far away from the current bridge as possible, while staying clear of the airport. The Sunny Point overpass intersection was designed with a potential crossing connection in mind. On the North Douglas side, the Hendrickson Point area provides the most flexibility for the crossing connection. This crossing area has the best combination of traffic efficiency and safety benefits, while allowing for minimal disruption to surrounding neighborhoods on both sides of the	Good morning Mr. Shattuck, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/19/2022	M. McCammon	

		crossing. This project has been studied to death. Hopefully this time around we can finally see some tangible benefits (a completed crossing) come out of the millions and millions of dollars spent studying a project that most agree is necessary and inevitable. Let's get it done! Thank you,				

12/19/2022	David Epstein	Greetings, I would have attended the December 12 public meeting but was out of town for work at the time. That said, I have reviewed some of the project documents. In my opinion, Juneau needs a 2nd crossing and I wholeheartedly support the initiative. As a resident of Bayview subdivision, I am concerned about potential effects that some crossing alignments could have on our neighborhood. A few of the ideas for crossing locations would/could land nearby, too close for my comfort level. A balance needs to be achieved that satisfies project purpose and need without levying significant negative impacts on residential areas. From what I see in other study documents, this appears achievable and I encourage the study team to work toward that end. For full disclosure, I work at DOT&PF Southcoast Region. These comments are my own and are not made in the capacity of my employment with the Department. Thank you for your consideration. Best regards,	Good afternoon Mr. Epstein, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/19/2022	M. McCammon	

12/19/2022	Steve Bradford	I am retired from the Alaska DOT, having served my last 7 years as the state's Chief Bridge Engineer. Additionally, I am a near 50 year resident of Juneau. It is my opinion that the greatest benefit from a 2nd crossing will occur at the most northerly feasible location. That location would be along the top of the Mendenhall Peninsula. This route neither impacts the Fritz Cove neighborhoods or the Mendenhall Peninsula neighborhoods. If constructed just under the ridge, airway/highway conflicts are avoided. As the roadway along the top of the peninsula reaches tidewater near the Gastineau Channel, the roadway would continue on fill and then on a bridge sufficient for small vessel clearances and hydraulic opening, and then again on highway fill to join with the North Douglas Highway in the vicinity of the North Douglas launch ramp. This option gives the most direct access to future development on the backside of Douglas Island, and has the least traffic impact to all North Douglas highway residents. While there may or may not be less expensive options, I think this option provides the greater value towards serving the purpose and need of a 2nd crossing. Thank you for considering my comments.	Good afternoon Mr. Bradford, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/19/2022	M. McCammon	

12/19/2022	Tom Gill	For those of us unable to attend the meeting: Are there any meeting minutes available? Is there a summation of any kind? Any public feedback? Once again a great table of contents And outline. And maps with no explanation Tom Gill	Good afternoon Mr. Gill, The materials presented at the open house are available on the project website https://www.jdnorthcrossing.com//outreach.html and by clicking this link directly to the Story Map: https://gis.dowl.com/portal/apps/storymaps/stories/f7cb8dba48b84936a3e40a60cd246813 Please let us know if you would like to discuss the preliminary alternatives further. A description of each is included in the Story Map. Also included in the Story Map is the screening criteria and evaluation. We have requested feedback by January 20, 2023, so we will not have a summary of that feedback until after that date. Please let me know if I can provide any assistance. Best regards, Morgan McCammon	12/19/2022	M. McCammon	
12/20/2022	George Fisher	Hello, my name is George Fisher. I'm a resident of Juneau since 1971. I've seen a lot of the changes Juneau has gone through. I'm in favor of a second crossing to Douglas Island. My preference would be in order of preference. 1. Just north of the airport industrial blvd 2. Sunny point intersection. 3. Vanderbilt intersection. Thanks, George Fisher	Good morning Mr. Fisher, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/21/2022	M. McCammon	

12/20/2022	John Monagle	Juneau has needed to expand our potential for recreational, residential, commercial, industrial as well as port development in order to keep Juneau economically viable and healthy. This is a reasonable way for Juneau to achieve those goals and now is an opportune time to acquire Federal infrastructure funding for that purpose. If reasonable opportunities exist, our young adults our young adults will see a reason to be here! Without positive change, the slow loss of vital youth will continue south.	Good afternoon Mr. Monagle, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/20/2022	M. McCammon	
12/20/2022	Krista Garrett, Conservation Director	Hello, Please find attached a memo outlining SEALT's comments and questions regarding the PEL study's draft materials and processes shared with the Technical Advisory Committee during the meeting on 11/17/2022. We are requesting responses to our questions be shared with the Technical Advisory Committee before Level 1 screening begins and no later than February 1, 2023. Thank you, -- Krista Garrett she/her/hers Conservation Director See attachment dated 12/20/2022	Good afternoon Krista, Thank you again for the comments and questions. We appreciate your involvement in the study and on the advisory committee. Please see the attached response memo. Please let us know if you would like to discuss any of these issues further, we would be happy to meet with you. Best regards, Morgan McCammon See full response in letter attached to comments dated 12/20/2022	2/2/2023	M. McCammon	Advisory Committee Comment - Meeting 2

12/20/2022	Rick Perkins	I am very much looking forward to having a second crossing. It will be a huge benefit to the community, for safety, and to help with new property development. I know there are opinions that the farther out the better for the crossing, but some of those options have no way handle the traffic. Engineers' cutoff is not a major road and cannot be widened easily. This option would also have to cross more deep water. Likewise, the industrial Boulevard has similar problems, it could be improved to handle the traffic. However, it would need to cross the Mendenhall River and the channel. This leaves the overpass at Sunny point, and Vanderbilt light as the two best choices. Using the existing light would work but would also slow down traffic on Eagan drive. This light already has times when traffic is delayed and backs up a bit. The exit and on ramps are already in place at the overpass near the old Walmart, would be the least impact on traffic. The wetlands in these areas are already disappearing due to Isometric rebound. The new road could be built largely on fill with some large culverts for fish passage. Cheaper than a large bridge, and impact to the wetlands would not be that much greater. I have hunted the wetlands for over 30 years and hate to have it gone, but the benefits out way the loss. Thanks for the chance to voice my opinion,	Good afternoon Mr. Perkins, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/20/2022	M. McCammon	

12/20/2022	Rob Kenney	Opportunity to put the Coast guard icebreaker staging area and Dock just passed North Douglas boat launch ramp in the cove.....	Good afternoon Mr. Kenny, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/20/2022	M. McCammon	
12/20/2022	Thomas Johnnie, Sr	sd	Good afternoon Mr. Johnnie, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/20/2022	M. McCammon	

12/28/2022	Andy Hughes	Evaluate construction of a causeway across the Gastineau Channel Wetlands southeast of the airport runway with a hydraulically operated bridge located at an elevation sufficient to pass most small vessels forecast to be able to navigate the channel over a reasonable period into the future as restricted by hydrostatic rebound. The bridge could be opened by appointment to pass the occasional vessel with clearance requirements exceeding the bridge clearance limits at high tide. As years go by the need to open the bridge should become moot as the land continues to rise. Conduct a survey of the number of small vessels that transit the channel by size, type, and height. My guess is the clearance requirements below the approach to the airport runway is 18 feet below the airport runway approach surface. I do not believe longer runways will be needed Also locate the point where the incoming tides meet from the east and west ends of the channel. Locating the causeway as close to this point as possible would minimize the impact to existing tidal currents. Consider the population centers of Juneau, trip purposes, and length of forecasted trips to identify crossing locations that provide the greatest economic benefits to the user. Identify the most cost effective alternative over the road crossing service life, all cost consider.	Good afternoon Mr. Hughes, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	12/28/2022	M. McCammon	

12/28/2022	Andy Hughes	The Harbor Master may have an idea of how many and type of vessels transit the channel at high tide. He also might be willing to participate by recording harbor staff daily observations of vessels transiting the channel. The US Coast Guard is key to determine degree that you can restrict channel transit.	Good morning Mr. Hughes, Thank you for the additional suggestions. Morgan McCammon	12/29/2022	M. McCammon	
1/3/2023	Patty Wahto Airport Manager Juneau International Airport	Good afternoon, Steve. It was just brought to my attention that the State and DOWL are moving forward with the preferred alternative of the second crossing to Douglas at the Sunny Point location. The Airport went on record that this has a high probability of impacting the extension of our MALSR to RWY 26. We have funding in place through the BIL grant and now awaiting the final congressional language change for FAA to assume ownership and maintenance. I sincerely hope this is incorrect information that would impact approaches to JNU. My next email will be to our congressional delegation. Patty	Patty, I will call you to discuss but since several folks were on the email, I'll let you know that we are a long ways from choosing a preferred alternative. We are still in the concepts stage but one of the concepts is in the Sunny Point area. We are certainly aware of the issue with the planned MALSRs and the unique approach surfaces east of the runway. We are making sure that we are not in conflict with either of these issues. We consider it to be a fatal flaw if the concept impacts the existing or future approach surfaces or the ability for the airport to extend the MALSR to RW 26. Thanks Steve	1/3/2023	S. Noble	Advisory Committee Comment - Meeting 2

1/5/2023	Amy Rodman	Message: Hi, I'm calling about the proposed N Douglas Bridge. I was in Juneau. I am not quite sure how much public outreach has been done besides, you know, public meetings and whatever the formal process requires. I see that there's a website through DOT's website, but I was wondering, you know, how much on Facebook has been done. I wanted to post a link to the project website and also to the survey that's due in a couple weeks that a lot of my coworkers and friends and family haven't even seen or heard about. To the general Community collective Facebook website and also the Douglas Island related Facebook groups, yeah, I just don't know how much people don't really look at dot websites much. Anyways, that wasn't sure how much was being done on social media except where the people are. My number is [redacted]. Thanks and have a good day. Bye, bye.	I called Ms. Rodman back. I let her know that DOT&PF and CBJ were handling social media posts. I said we would be happy to have her share information about the project website and survey on Facebook groups she is a part of to supplement the social media outreach. Additional Response Hi Amy, Thank you for call and your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and concerns with the project team regarding the social media outreach for this PEL study. We made some changes to the website wanted those to be in effect before sending language to share on social media. Here is some language you could share on the Juneau Facebook Groups you are involved with: The City and Borough of Juneau has partnered with the Alaska Department of Transportation and Public Facilities to study a possible transportation corridor to connect Juneau with the north end of Douglas Island using the Planning and Environmental Linkages (PEL) process. Click here to view the StoryMap with an overview of the Preliminary Alternatives and the screening process. Based on comments received to date, the study team modified one alternative and extended the survey comment period to February 3, 2023. Please submit your comments by completing the online survey. Comments sent to the study email address, jdnorthcrossing@dowl.com, and via the website are accepted anytime. Make your voice heard! Please let us know if you have any additional	1/5/2023	M. McCammon	

			comments or questions. Best regards, Morgan McCammon			

1/5/2023	Cody Hargreaves Sr. Principal Performance Based Navigation (PBN) Engineer Flight Operations – Engineering & Fleet Technology	Good Morning, Could you please send me an shape file or some format that AutoCAD can open outlining the areas of interest? We are primarily concerned with the Sunny Point Area, but if it's easy enough to send all areas we would like to analyze and determine at what height the area would impact our flight procedures and/or payload at the airport. Thanks and Happy New Year! Cody Hargreaves Sr. Principal Performance Based Navigation (PBN) Engineer Flight Operations – Engineering & Fleet Technology	Good morning Cody, At this stage in the PEL study, we do not yet have drawings or shapefiles for the concepts. We expect that these should be developed within the next month or two. We will share these with you when available. We appreciate your continued involvement. Please let me know if you would like to schedule a meeting to discuss this further with the study team. Best regards, Morgan McCammon	1/5/2023	M. McCammon	Advisory Committee Comment - Meeting 2
1/5/2023	Patty Wahto Airport Manager Juneau International Airport	Hi Stewart. Thank you for reaching out. I would be available Friday afternoon after 1:30 if that works. Our Deputy, Phil Adams was on the Ramp design meeting call on Tuesday. I was not able to attend, and the more recent TAC meetings for the second crossing conflicted with my schedule. So when Phil stated that, during the ramp meeting, DOWL mentioned that sunny point location for the crossing looked to be the preferred alternative, I was caught off guard. It was mentioned as a sidebar that the State had received $7M to move this project to the next phase. Sounds like the hunters have a stronger advocacy group than the aviation group. Or the State really wants to limit access options into JNU. Does tomorrow afternoon work for you? Patty	Phone conversation		S. Osgood	Advisory Committee Comment - Meeting 2

1/9/2023	Margo Waring	Thank you for sending along these materials. My comments are below. The Draft Recommended Alternative Selection Criteria Memo introduces a new criteria by establishing as a given a purpose that exceeds original study intent. Several times in describing purpose, the phrase "corridor to connect Juneau with the north end of Douglas " is used. The intent of the study all along has been a second crossing—which is why the study generated alternatives sites as close to downtown as Twin Lakes, far from the "north end" of Douglas Island. This is "purpose creep" and a focus created by the PEL Study Team that is unfair to both the original intent and to public process. It is not the job of the PEL Study Team to re-write the study's purpose to skew favor toward one or more alternatives, perhaps expecting that we will not notice as our eyes slide over the bureaucratic language. The study has all along used the purpose language of : "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." What makes for affordable housing? Experts know that affordable housing comes from building higher density housing close to existing infrastructure (water, sewer, garbage, electric, transportation, etc.) and services. You DO NOT have affordable housing where you must clear forests, build water and sewer distribution and processing, new roads, new services such as garbage collection and disposal, public transportation and schools. The study's language assumes that West Douglas is capable of providing affordable housing when Juneau has difficulty building affordable housing even with our stable	Good afternoon Ms. Waring, Thank you for being involved in this study and sharing your concerns and comments. The language you identified "corridor to connect Juneau with the north end of Douglas Island" is indicated in the PEL Study Description and is not included in the Purpose and Need Statement. We will consider a clarifying revision to that statement to indicate that the PEL study is studying a possible transportation corridor to connect Juneau with Douglas Island north of the existing bridge. Development of the purpose and need statement is one of the first steps of the PEL process. This is an iterative process where the study team has taken input from the public and agencies, as well as met the guidelines of the Federal Highway Administration. We did not come into this process with preconceived notions of what the purpose and need would say. The purpose and need statement has now been completed and approved by the Alaska Statewide Environmental Office, and it does not include economic development. The statement, "Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities." is listed as an Additional Goal for the study. Please see the approved purpose and need statement as posted on the study website documents tab: https://www.jdnorthcrossing.com//documents.html.	1/11/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		population and where existing services and infrastructure exist. That leaves as a purpose “economic development”, the true driver of interest in the north end of Douglas Island, the desire of some commercial interests in economic possibilities paid for with public dollars and at the expense of environmental values.	Please feel free to reach out if you have any additional concerns or comments to share with the study team. Best regards, Morgan McCammon			

1/9/2023	Roy Churchwell, ADFG	Hello Morgan, In your email you mention, “the Sunny Point Area preliminary alternative has been modified to include a secondary entrance on the mainland side”. I would be happy to provide further comments on this, but can you provide better direction to where I can find a description/map of this secondary entrance? Thanks. Roy Additional comment Hello Morgan, I think the issue is (at least for me) that the map you have provided has all of the alternative routes on it, but you have asked us for additional comments on an added route. Unfortunately, I am not sure which one that is. Can you provide a map with that one route delineated? Roy	Good morning Roy, Please open the StoryMap (https://gis.dowl.com/portal/apps/storymaps/stories/f7cb8dba48b84936a3e40a60cd246813), and click on the Preliminary Alternatives tab at the top of the screen. The modified Sunny Point Area preliminary alternative is shown, both on the overall map with all preliminary alternatives and on the detailed map found when scrolling down. Please let me know if you have further questions. We look forward to your comments. Best regards, Morgan McCammon	1/9/2023	M. McCammon	Advisory Committee Comment - Meeting 2
1/9/2023	Barb Mecum	Ms. Mecum called to ask for clarification on the modified Sunny Point Area preliminary alternative. I assisted her to navigate to the StoryMap and shared that more detail would be provided at future iterations following level 1 screening. She shared that she was concerned that the maps were not showing individual properties and acknowledging that people's homes could be impacted by various alternatives. She also said she would share an update to the petition she organized against the Mendenhall Peninsula preliminary alternative Additional comment Hi Morgan, Thanks for speaking with me today, very helpful.	Hi Barb, Thank you for sharing this update on the petition. We appreciate you letting folks know the comment period has been extended. We want as much participation as possible. Best regards,	1/9/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		Just a quick update our Friends of Fritz Cove Petition is now up to 76 signers. I'll let our folks know the comment period is extended. Please let me know you received this email. Thank you, Barb				
1/10/2023	Barb Mecum	Hi Morgan, Just a quick update, we just grew to 87 signers on our petition to oppose the Mendenhall Peninsula to the boat launch area. Are you able to add that to the Public Record? Also, hoping some of the folks went back online to do your survey. Thank you, Barb	Good morning Barb, Thank you for sharing the update on the petition. Any comments, updates, or concerns you send are part of this record. We want to hear from you, and anyone, as often as you like, especially as new study materials are developed. We have gotten, and are continuing to get, responses to the survey. We appreciate your continued involvement in this process. Best regards, Morgan McCammon	1/11/2023	M. McCammon	Advisory Committee Comment - Meeting 2

1/10/2023	Margaret Custer · Executive Director Southeast Alaska Land Trust	Hi Morgan, Please send out the preliminary alternatives to the technical advisory committee so that we are able to provide feedback. Thank you, Margaret Custer · Executive Director Southeast Alaska Land Trust	Good morning Margaret, Please see the attached modified preliminary alternatives. Please let us know if you have any further questions. Best regards, Morgan McCammon	1/11/2023	M. McCammon	TAC Email
1/11/2023	Dave Hanna	Greetings all, In regards to Ms. Warings' comments on mission creep, I believe she is splitting hairs here as well as misconstruing the intent. If the language didn't say the north end of Douglas island it could move the crossing south of the current bridge. Looking at a map shows that anything north of the bridge is on the north end of the island. And as far as " affordable housing" location criteria, public utilities are actually available all the way out to Bayview Subdivision, and no matter where subdivisions are built, clearing and filling are necessary. Indeed one of the largest expenses is filling, and the far north end of the island has rock resources on the actual subdivision sites which drastically reduces the cost of development. I commend the work of the team so far in recognizing all the aspects to consider in this study. Respectfully, Dave Hanna	Good afternoon Dave, Thank you for the feedback. Please let us know if you have any additional feedback on any of the preliminary alternatives and the screening process including the screening criteria by February 3, 2023. Best regards, Morgan McCammon	1/11/2023	M. McCammon	Advisory Committee Comment - Meeting 2

1/11/2023	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Hi Morgan, NOAA FIsheries Habitat Conservation Division would assess alternatives based on those that present the least impact to essential fish habitat (EFH) from wetland, riparian, shoreline or waterbody fill, or that compromise previous compensatory mitigation. The permitting federal agency with a nexus to EFH consultation requirements would need to prepare a detailed EFH assessment based on the specific project proposals for our review. To provide a broad brush perspective, alternatives that move away from the existing bridge look to have progressively higher impacts. However, this will depend on their specific footprint and nature of impact Linda Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Hi Linda, Thank you for feedback. Please let us know if you have any additional feedback on the preliminary alternatives or screening process and criteria. Best regards, Morgan McCammon	1/11/2023	M. McCammon	Advisory Committee Comment - Meeting 2

1/11/2023	Karen Crandall	A question – I just checked your site again and read: Survey: Based on comments received to date, the study team modified one preliminary alternative and extended the survey comment period to February 3, 2023. What alternative was modified and what was changed?	Good morning Ms. Crandall, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the study team and added you to the project email list. The survey comment period is being extended until February 3, 2023 because, based on comments received to date, the Sunny Point Area preliminary alternative has been modified to include an alternate connection on the mainland side. This is a separate landing point that will be evaluated on the Juneau side of a possible crossing near the Sunny Point interchange. A crossing in this area would connect either to the interchange directly or to Egan Drive approximately a half mile west of Sunny Point interchange. A crossing under this option would not include both connections. Please let us know if you have any further questions or comments on any preliminary alternative and the screening process. Best regards, Morgan McCammon	1/13/2023	M. McCammon	

1/11/2023	Matt Voelckers	In my opinion, the north or south airport crossings makes the most sense to serve the most people. In lieu of a bridge, consider a tunnel. Drive temporary steel retaining walls into the wetlands. Excavate, drive pile, construct a concrete tunnel or lay precast tunnel sections, then backfill the sand and silt to remediate the wetlands. The tunnel must only be as deep as to be obscured. In effect it bears on piling just the same as a bridge would. I think juneauites value our wetlands too much for a bridge, and a shallow tunnel is not a huge technical challenge. -Matt voelckers	Good morning Mr. Voelckers, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/12/2023	M. McCammon	
1/13/2023	Betsy W. McCracken EPA Biologist	Good morning, Please see attached preliminary comments from EPA on the Juneau Douglas North Crossing. Please share with the Technical Advisory Committee. Thank you, Betsy See attachemnt dated 1/13/2023	Good morning Betsy, Thank you for providing comments. We appreciate this input and will continue to include you on future updates and opportunities to provide feedback. Best regards, Morgan McCammon	1/13/2023	M. McCammon	Advisory Committee Comment - Meeting 2
1/13/2023	Leonard Roger Calloway Jr.	To whom it may concern; I support the second crossing, with the preferred route option of Mendenhall Peninsula or Industrial Blvd. Peace!	Good morning Mr. Calloway, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/16/2023	M. McCammon	

1/14/2023	Bruce Baker	My January 14, 2023 comment letter regarding the Juneau Douglas North Crossing PEL Study is attached to this email message. Please make my attachded letter part of the administraive record. Thank you, See attachment dated 1/14/2023	Good morning Mr. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comment letter with the project team and updated your information on the project contact list. Best regards, Morgan McCammon	1/16/2023	M. McCammon	

1/16/2023	Patricia Rorick	I have been a resident on Mendenhall Peninsula for over 30 years and this is the last place I would want to see a bridge to Douglas Island. We live in an isolated area with a large amount of wilderness and wildlife. Around my house, I am able to regularly watch red squirrels, eagles, ravens, deer, black bears, woodpeckers, songbirds, and porcupines as they go about their lives feeding, rambling, and playing. My property borders the wetlands and we have to be very careful to contain any toxins that could run off down the hill into a critical salmon spawning stream. Any road up the hill would increase ten fold the fuels and oils that seep downhill and end up in the wetlands, poisoning the tiny salmon that hatch there. Besides disrupting the wilderness and the birds, fish, and animals that depend on it, a road along the peninsula ending in a bridge would greatly disrupt my quality of life by bringing noise and exhaust from cars, and street lights creating light pollution, into my neighborhood. At the end of the peninsula is a trail that goes all the way around the tip of the peninsula and ends at Fritz Cove Road. I hike this trail with my family several times a week throughout the spring, summer, and early fall. A road and bridge would cut this trail in two and make it completely unusable. Any bridge that would be built would need to be high enough for boat traffic to travel under it, as many small vessels come around the point and into the Mendenhall wetlands from the Auke Bay marina. I can only imagine the enormous amount that such a monstrosity would cost. The wildlife in this area would never recover from the disruption and the tranquility in my neighborhood would be gone forever. I am not convinced that a second crossing is needed at all, and I favor a “no alternative” option.	Good morning Ms. Rorick, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/17/2023	M. McCammon	

		The expense of this project is huge, and I would rather see my tax dollars go toward a project that discourages the use of cars that produce more traffic, carbon, and pollution. Instead of building more roads and contributing to climate change, we should be building infrastructure for electric cars and buses and finding ways to consolidate traffic and use more public transportation. If the city must build a new bridge, it should be built at the Salmon Creek intersection so as to provide easy access to the hospital. Anything further up the channel will interfere with the Mendenhall Wetlands, and destroy any chance of hiking, dog walking, bird watching, and hunting in the area. I enjoy driving down to Vanderbilt or Sunny Point to hike the wetlands on a sunny day and exploring the tidal grasses with my family. I urge DOT to reconsider the bridge to North Douglas and instead use my tax money for a project that benefits everyone in the city of Juneau, by preparing us for the changing climate. Thank you for your time.			

1/17/2023	John Blasco	Mayor Beth Weldon & Members of the Assembly Re: Assembly Priorities The Juneau Chamber appreciates the work that all of you put in to guide Alaska's Capital City through an ever-changing multitude of challenges. The chamber board took the time to review the draft FY24 list of Assembly priorities as presented at a recent finance meeting. We do not take issue with any of the items listed, but we are greatly concerned that you have moved the "Juneau North Douglas Crossing" previously #2 down to #8. We strongly urge the Assembly to reorganize the list to reflect the top three items as: #1 Pederson Hill Development #2 Juneau North Douglas Crossing #3 CBJ Radio System Replacement The chamber has no comment on the order of the remaining 19 items. We believe that it is critical to the ongoing efforts to secure federal funding that it remains clear that this is a top priority for the City of Juneau. While we have been successful in securing state funding for the PEL study, and now $7 million in federal funding for the subsequent stage of environmental and design, we are a long way from completion. We ask the Assembly not to downgrade the importance of this project. This is a moment in time when this project may have access to the significant amount of funding required to construct the North Douglas Crossing. Your endorsement of its priority will have an impact on various funding applications as well as the public's view of this project. Respectfully, John Blasco Maggie McMillan	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

1/17/2023	John Chapman	Should be located for maximum efficiency and minimal impact to current neighborhoods. Nine mile road or further out makes sense.	Good morning Mr. Chapman, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/17/2023	M. McCammon	
1/17/2023	Roger Ramsey	Hello All, So my preferred option would hit north Douglas Highway right at the intersection of Fish Creek Road which leads to Eaglecrest. There is a significant amount of traffic generated by Eaglecrest and with the Gondola and other imminent potential future developments off Fish Creek Road, it would be very wise to have the intersection of the second crossing come right to Fish Creek Road. AK Mental Health Trust sold a vacant lot to John Bohan, a CBJ project manager, directly across from Fish Creek Rd and it is still vacant. So using emanant domain to acquire this lot would be painless. The view shed is already encumbered by the airport runway, so adding a road in front of this on the other side of the Channel from ND would not change things too much. There is already a CBJ right of way between Temsco and Bicknell, so that side would have and easy connection. Additionally, there is already a fully developed intersection with a brand new gas station and convince store on the Egan side. I would truly love to hear why this option is not on the table. Thanks so much for your time,	Good morning Mr. Ramsey, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and suggestion with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/17/2023	M. McCammon	

1/18/2023	David Kirstien	Hi Morgan, I returned a phone call today from David Curstine (sp??) It was a lengthy phone call and hard to capture it all. I encouraged him to provide written comments. Here are some points that were covered. David was concerned that the two northernmost alternatives were added following the public meeting. His understanding was from an article in the Empire that led him to believe these were added after the other alternatives. I explained that we started with 15 crossing ideas from discussions with the public and the ideas were consolidated into the 8 preliminary alternatives that were presented at the public meeting in December. I further clarified that the only addition since that meeting was the northern connection for the Sunny Point alternative. David also expressed dislike of the open house format, particularly that there was not a formal presentation. He felt like he didn't have the information necessary to ask good questions. David asked about the current traffic on the bridge and where people are going and coming from. I explained that we will soon have that information as part of the origin-destination study. David expressed some concerns about the process, timeline, how long EIS would take, and when construction might be expected. I explained the PEL study process and that it does not include an EIS at this time and a future project would be initiated to perform full environmental study.	Phone conversation	1/18/2023	M. Heidemann	

		David also had some concerns about a bench road, specifically why he was told it isn't part of the study. I explained that the PEL study provides opportunity for us to make additional recommendations, but it is not directly part of any of the alternatives. I gathered that David is in support of a bench road because he is concerned about traffic impacts on N. Douglas Highway. Some other concerns expressed were for the viewshed north of the airport and that the project, particularly the north options, are proposed on behalf of Goldbelt to provide cheap and easy access to their land. I voiced that this was not the intent of the project and explained the transportation focused purpose and need and the screening criteria. I encouraged him to review both to better understand how the alternatives would be evaluated. Thanks,				

1/20/2023	David Kirstien	Project Planners and Contacts: I would like to make the following comments and observations regarding the proposed project for another crossing to Douglas Island. In your literature you reference the main Needs are for (a) Alternate access and transportation infrastructure resilience and (b) Decrease traffic pressure on Douglas Island Bridge and its intersections. Also references in the literature are to Purpose and Additional Goals. After reading your literature I would like to make the following comments and observations. 1. The 14,000 crossings per day on the existing bridge does not identify how many crossings are North of the roundabout versus South of the roundabout. This information should be available for the project planners to assess the impact on the N Douglas Highway when a new crossing is being contemplated. Having a crossing closer to the existing bridge will access the Hospital and may divert some of the drivers from South Douglas to a new crossing. 2. Two of the 8 primary crossings being contemplated are 9 to 10 miles North of the current bridge. I don't see how a bridge that far North is going to alleviate much of the crossings that emanate from those drivers South and just North of the roundabout. They will still use the existing bridge and they represent a large percentage of the 14,000 daily crossings. 3. The two far North crossings would require either a bridge or a tunnel. Both are very costly to build and maintain. A bridge would negatively impact the "view scape" of the Mendenhall Glacier, especially at Mile 10 and 11 on the N Douglas	Good afternoon Mr. Kirstien, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and questions with the project team and am working on getting answers. I will add you to the project email list. Best regards, Morgan McCammon Additional Response Good morning Mr. Kirstien, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We appreciate your feedback and questions. We also appreciate you taking time to review the PEL Study materials on the website. The PEL process is a Federal Highways Administration (FWHA) process designed to integrate transportation planning and environmental analysis in a collaborative fashion. The PEL process creates a space to engage with agencies and the public on environmental, community, and economic goals, develop a purpose and need statement, and perform preliminary screening of alternatives during the planning process. Planning analyses and products from a PEL Study can be carried forward into the National Environmental Policy Act, or NEPA, or other environmental review processes. The goal is to save cost, streamline the delivery timeline of future projects, and focus expenditures on viable options. As part of the analysis being conducted, the study team is developing an origin-destination study utilizing GPS data to model traffic patterns. We	1/20/2023	M. McCammon	

		Highway. A bridge would also negatively impact viewing Auroras. Juneau residents and tourists would be negatively impacted by damaging their "view scapes". Further, traffic from either crossing would dump onto a two lane road, the N Douglas Highway. Not really a highway, just a road. 4. Your literature mentioned the Bench road. When I asked a Project Team member about this road their reply was "it is not part of the study". So you're planning on dumping all this additional traffic onto a road called a "Highway"? And there's no planning on the creation of this road concurrently with the planning for a second crossing? Not sure I'm understanding the lack of comprehensive planning on this project. 5. Your literature references creating "additional traffic capacity to support the future of affordable housing and economic development opportunities. Is this "Code" for helping the Native corporation gain road access to its buildable land so they can have "no cost to them" road access for their money making subdivision that will be at least 14 miles from the existing bridge crossing or 6 to 8 miles from the Valley? And what kind of subdivision will it be to make it "affordable"? Multi-family units for rent? For sale? Single family homes for rent or for sale? Juneau has not been experiencing any population growth for at least the 5 years I've lived here not because of available, "affordable" housing but because the economic engine for Juneau is tourism that lasts at most 5 months out of the year. Tourism workers stay 5 months too, then depart. Economic opportunities out that far are only Eaglecrest Ski Area and anything built by the Native corporation to make more money for them. And the federal government is indirectly subsidizing the Native corporation's agenda/projects?	expect this analysis to be complete in February 2023. This analysis will help us to better understand traffic patterns in the study area and how a north crossing might change them. In order to demonstrate a robust process, the study team must consider all feasible alternatives, then apply the screening processes, which will determine the alternatives to move forward for more detailed analysis. Eliminating an alternative too soon and without the proper evaluation and documentation jeopardizes the entire process. The level 1 screening uses criteria from the following areas: purpose and need statement, natural environment, social, housing, economic impacts, safety, cost, and public support. Once level 1 screening in complete, the remaining alternatives will be recommended to advance to detailed alternative development. Future evaluation of detailed alternatives will include design details like impacts to environmental resources, including viewsheds, and costs for construction, mitigation, and annual maintenance. Level 2 screening will evaluate these to assist in identifying the recommended alternative or alternatives. Throughout the process, a no-build alternative will move forward as a baseline comparison. These alternatives, including the no-build, along with associated data and analysis will move forward to a future National Environmental Policy Act (NEPA) process. A potential future bench road, or other recommended upgrades to existing infrastructure, are not part of this PEL Study. The project team added the bench road in response to public comments mentioning the need for it. Some upgrades could be beneficial to construct, such			

		My last area of concern is the PEL process. I attended the December 12 Open House. (I do not recall receiving notice of any previous meeting. I live in the affected area.) There were at least 150 in attendance at the time I was there. Lots of information were on tables and storyboards. Lots of people were reading and learning more about the crossing issues. Project Team members were there. Every time I came up to a table a Project Team member politely asked if I had any questions. I came away that evening thinking that if I don't ask they're not going to tell anything about the project. It felt as if the PEL process did not provide an orientation or presentation summary of the Project but expected each attendee to spend several hours learning about the issues and then ask questions. I am not impressed with the PEL process. I understand that this project is federally funded. I would hope that this Project is well thought out by the Project Team members and well communicated to the residents of Juneau. Thank you for letting me share my comments, concerns, opinions and observations. Respectfully,	as a bench road, regardless of a north crossing proceeding and could be recommended for development. These projects would be independent of north crossing locations recommended by the PEL Study. One of the additional goals of the PEL Study, that you noted, is based on the City and Borough of Juneau recognizing the need for affordable housing in the Juneau area. Juneau has a unique landscape with little available buildable land remaining. One area that could be developed is west Douglas Island. While no development is in the design stages at this time, a north crossing could provide redundant emergency access in the event the existing bridge is out of service and decrease pressure on the existing bridge and intersections. Please reach out if you would like to discuss these or any other issues. Best regards, Morgan McCammon			
1/23/2023	Bob Saviers	Voice Mail - Bob Saviers [redacted], looking to see if you received my comments and other comments on the 2nd channel crossing. Thank you.	I called Mr. Saviers back. He asked if I had received his comments sent over the weekend. He sent them to the project email address. I have not seen them, so I requested he send them directly to my email address. He said he would forward them to me.	1/23/2023	M. McCammon	

1/24/2023	Mel Izard	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Mel, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/24/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. I care deeply about Juneau, and adding this second crossing would negatively impact the beauty of Juneau that makes me love calling this place home. Gunalchéesh/thank you,				
1/24/2023	Kathryn Dupere	I vote the North Airport. The others are too close to the existing bridge and the Mendenhall Peninsula/ Fritz Cove one is longer so it would cost more.	Good afternoon Ms. Dupere, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/24/2023	M. McCammon	

1/24/2023	Max E. Mertz	Good morning, the purpose and needs statement November 2022 update lists three 'additional goals' at the bottom of the statement. The third states "Transportation improvements should avoid, minimize, and mitigate impacts to the environment and to residential areas." How can any project avoid impacts? Whether you view impacts as positive or negative, impacts will occur. Mitigation is also something that can't necessarily be fully achieved. Also, existing various governmental regulations are in place to mitigate impacts. If these terms are tests that the project will be held to, then it will in itself kill the project. I hope that wasn't your intent, and believe it wasn't. The existing language opens the door to legal challenges. That bullet should be modified to state "Transportation improvements should minimize, where appropriate, potentially negative impacts to the environment and to residential areas." Thank you. Max	Good afternoon Mr. Mertz, Thank you for your interest in the Juneau Douglas North Crossing PEL Study and your comments. The language you noted in the study purpose and need statement is commonly used regulatory language with legal definitions. An example of avoidance of residential impacts would be to site the project on CBJ land where possible. In instances where avoidance is not possible, there are often design features such as increasing the embankment slope to minimize the project footprint, or minimizing the amount of land needed for a proposed corridor. And should there still be unavoidable impacts, then mitigation is a strategy required to compensate for those impacts. All projects occurring on federal lands or using federal funds, such as this study, must comply with these regulations. In part to this compliance, projects must avoid, minimize, and mitigate to the greatest extent possible while providing clear and concise evidence along the way. Please reach out if you would like to discuss this or any issue. Best regards, Morgan McCammon	1/25/2023	M. McCammon	

1/25/2023	Heather Nelson	Good afternoon, I am writing you to request that you reorganize the priorities and move the North Douglas Second Crossing back up the legislative priority list, in the top 3. Simply put, the timing could be critical as there is a position to have access to the significant amount of funding that is required for the project. The Chamber has recently submitted a letter to the assembly, which is attached, and I mirror its support and efforts. Thank you for your consideration! Warm Regards, Heather Nelson, Community Affairs & HR Supervisor	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

1/25/2023	Alex Wertheimer	Thank you for the opportunity to comment on the North Crossing PEL Study Preliminary Alternatives. There is very sparse information provided on each alternative, which makes it difficult to review them. However, there are some general characteristics for the alternatives that can be used to prioritize which ones go forward to Level 2 screening in your process. The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Scoping Document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the alternatives meet these needs in some fashion, except perhaps for the Downtown. Again, there is no design detail, but it seems likely that a situation compromising the existing crossing could also impact this alternative. For the other seven alternatives, there is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas residents, and would greatly increase transport time for this population if the current crossing was compromised. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out as the best alternative to provide reduced transport/response time, with it placing you at the intersection with the hospital. The alternatives also have a range of impacts or benefits relative to the additional goals identified for the projects. For example, there is a north to south gradient in how well the alternatives improve access to North Douglas Island to support	Good morning Alex, Thank you for your continued interest in the Juneau Douglas North Crossing PEL Study. I have shared your informative comments with the project team. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		economic development. I am particularly concerned with how well the alternatives “avoid, minimize, and mitigate impacts to the environment…” and “maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.” It is difficult to overstate the ecological, environmental, and scenic importance of the wetlands encompassed by the study area. The Mendenhall Wetlands are a Globally Recognized Important Bird Area, providing critical habitat for migratory and resident birds. The Wetlands are also important fish and wildlife habitat and heavily utilized by human hunters and fishers, as well as birders, dog-walkers, joggers, the list goes on. The scenic viewscapes are recognized in the Juneau Comprehensive Plan, including the view from North Douglas towards the Mendenhall Glacier and up Stephens Passage, and the view inbound from Egan towards Gastineau Channel. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall the State Game Refuge. We also need to recognize that over 40% of the original wetlands have been filled and developed since the gold mining boom of the late 19th and early 20th century up until today. The incremental destruction and sectioning of the wetlands emphasizes the need for choosing a crossing alternative that has minimal impact on the integrity of the refuge and the ecosystem functions of the Wetlands. The best way to maintain the integrity of the refuge is to keep the crossing out of the refuge. In accordance with AS 16.20.034, the Mendenhall Wetlands State Management Plan specifies that the use for a public transportation corridor is allowed only if “there is significant public need for the corridor which cannot be reasonably met off-refuge”. For the Second Crossing, there are				

		alternatives that could be designed so they do not encroach on the Refuge. Excluding Downtown, these are Eagle, Salmon Creek and the two northwest alternatives. The other three alternatives (Sunny Point,Vanderbilt, and Twin Lakes) would directly impact the refuge. The amount of impact would vary with the type of structure, with earth-fill causeway causing the most damage from the fill, changes to the hydrodynamics of the tidal flows through the southern refuge, and forming barriers to fish, bird, and wildlife movement. These alternatives also would impact the scenic viewscape to a much greater degree than Salmon Creek or Eagle. By far the worst of these alternatives is the Sunny Point crossing in terms of environmental and scenic impact. The two Northwest alternatives could be designed to minimize wetland impacts, depending on how the entry/exit points are designed. By going under the Refuge, a North Airport tunnel could result in minimal environmental impact, as long as the entry/exit points were well upland. The Mendenhall Peninsula crossing could be aligned to stay out of the Refuge at the Peninsula, then make landing west of the North Douglas boat ramp. As noted before, these alternatives best meet the perceived need for access to North Douglas development (and Eaglecrest from the valley), but are also lowest in terms of emergency access. The cost is also likely to be very high relative to other options. The Mendenhall Peninsula option would also disrupt the highly-valued viewshed and require significant development to provide access from Glacier Highway. Salmon Creek and Eagle are the best options to minimize impacts to the Refuge and associated wetlands. Salmon Creek has the advantage of an existing interchange, and as noted above, provides				

		the best emergency access. Eagle is a bit more removed from the Refuge and viewscape, but would require a new intersection on Egan and as described in the alternative descriptions, could have avalanche issues. Of course, every mile south decreases savings in travel time to Eaglecrest and North Douglas relative to more northern alternatives, but those out- comes are a reasonable trade-off for the benefits of maintaining the integrity of the Refuge and the ecosystem processes that sustain it. In conclusion, I recommend the Eagle, Salmon Creek, North Airport, and Mendenhall Peninsula options move forward to Level 2 scoping. While I think that Salmon Creek is the best option, considering these four alternatives in detail would allow quantitative comparisons of the environmentally acceptable options in terms of emergency access, transportation facilitation, neighborhood impacts, and costs.				

1/26/2023	Annette Coyle	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Ms. Coyle, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Bernadette Andaloro	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/26/2023	Bert Corley	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Dagmar Friedman	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/26/2023	Evan Anderson	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Mr. Anderson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Gary Goetz	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Glen Anderson	To whom it may concern: Here is my comment on the Juneau Douglas North Crossing PEL Study. ALL of the alternatives that cross the Mendenhall Wetlands State Game Refuge are FATALLY FLAWED!!! PREVENT them from advancing them in the PEL study process or in an Environmental Impact Statement!!! I agree with the reasons mentioned by experts: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of	Good morning Mr. Anderson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Henry Westmoreland	To whom it may concern: In regard to the Juneau Douglas North Crossing PEL Study: The alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is no demographic demand or need for this project. Juneau is not growing; it is projected by the Alaska State Demographer to shrink by over 10% through 2050. There is a particularly high burden of proof to demonstrate a need for this project. It is critical to weigh the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and	Good morning Mr. Westmoreland, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is not warranted. Thank you, Henry Westmoreland westjunk1@gmail.com PO Box 600 Wingdale, NY 12594-0600 United States				

1/26/2023	James Wells	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	joan McBeen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. McBeen, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	JoLynn Jarboe	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Judith Hauck	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	ken foley	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: Habitat loss is at a critical level for wildlife. Please keep as much biodiversity as possible with the JDN crossing! — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members.	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Laura Hanks	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Linda Walters	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. Walters, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Lydia Garvey	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Marc Watson	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Marilyn Murphy DuBois	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Ms. DuBois, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Marilyn Murphy DuBois wildirishmurphy@yahoo.com 4484 Ridge Road Scotia, NY 12302 United States				

1/26/2023	Mary Glaves	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Ms. Glaves, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. -In addition, I would like to add that it is a gross unethical use of taxpayer dollars to continue to even bring up projects like this for the above reasons. Use of monies for poor planning and deliberation efforts, when more pressing issues affect this community is appalling. Gunalchéesh/thank you,				

1/26/2023	Michelle Breinholt	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Michelle Breinholt shelly.breinholt@gmail.com 35383 Parks Highway Willow, AK 99688 United States				

1/26/2023	Rebecca Wilson	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Richard Clement	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are NOT fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely NOT susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are NOT fatally flawed and should be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should NOT be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is a demographic demand or need for this project. Juneau is growing. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should NOT be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax	Good morning Mr. Clement, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		dollars in a community that is growing for a project which would expand the community footprint is A GREAT IDEA. Gunalchéesh/thank you, Richard Clement richardclementhaines@gmail.com P. O. Box 804, Haines, Alaska 99827				

1/26/2023	Rob Clark	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Mr. Clark, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Ruth Fulwiler	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. Fulwiler, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Ruth Fulwiler ruthfulwiler@yahoo.com 1208 fifth street Doiglas, AK 99824 United States				

1/26/2023	Salome Starbuck	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Ms. Starbuck, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Samuel McBeen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. McBeen, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Sandra Ashmore	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

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1/26/2023	Sarah Stewart	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Scott Hed	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Hed, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Scott Hed SCOTTHED@HOTMAIL.COM 217 CALUMET AVE NW DE SMET, SD 57231 United States				

1/26/2023	Shawn Emery	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Stevie Gawryluk	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Stevie Gawryluk				

1/26/2023	Summer Christiansen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon Ms. Christiansen, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Thomas Polatty	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Even though I'm presenting living in Oregon I will return to Alaska in time. You have missed the boat on this project as there exists no necessary reason for such a vast expenditure of resources. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl	Good afternoon Mr. Polatty, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		and create a services cost burden for all community members. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Ursula Cohrs	To whom it may concern: I am writing because I'm very concerned about the Juneau Douglas North Crossing PEL Study. There's no doubt in my mind that alternatives that cross the Mendenhall Wetlands State Game Refuge are flawed and should not be advanced in the PEL study process, nor in an Environmental Impact Statement. Here is why: — This project is susceptible to flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are totally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. — And this is a biggie: There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. The project will likely increase community sprawl and create a services cost burden for all community members.	Good morning Ms. Cohrs, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		— Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and housing density improvements across the whole area. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Virgene Link-New	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/26/2023	Wayne Carnes	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Carnes, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable.				

1/26/2023	Caitlin Stern	To whom it may concern: I am a resident of downtown Juneau who visits Douglas once or twice each week to take my kids skating at the ice rink, skiing at Eaglecrest, or playing on the beaches at Outer Point. I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge should not be advanced in the PEL study process or in an Environmental Impact Statement. The Mendenhall Wetlands has tremendous value in terms of wildlife habitat, ecosystem services, recreation, and viewshed. These wetlands must not be put at risk of negative impacts in service of a project that is not needed. There is no demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This project will likely increase community sprawl, already a significant problem for Juneau, and create a services cost burden for all community members. Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint and jeopardize the health of important wetlands is unjustified and unwise.	Good afternoon Ms. Stern, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	Survey

		Thank you,				

1/26/2023	Stuart Cohen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I am against any second crossing for many reasons. First, from a city planning perspective, it encourages suburban sprawl onto Douglas Island. At a time when we need to be consolidating around our city centers with denser housing, this plan will achieve exactly the opposite. How very 1950's! Great for whoever owns the land out in West Douglas. Not so great for those of us who will end up having to pay for water and sewer to be extended out there. Second, I do not approve of the impacts on the Mendenhall Wetlands. We already took a bite out of them when Egan Drive was built, and then another when the City decided to give Bicknell a free pass to destroy (oops, I mean develop) the recovering wetlands area near the airport. Natural areas are destroyed one piece at a time, one road at a time, and this is a step in that direction. How will these plans impact duck hunters and fisherman? Third, this project has always ranked extremely low in DOT rankings of transportation projects around the state. When Juneau was given a chance to fund this with our own money, it was soundly voted down. In other words, we recognized this was a BS project and put our money where our mouth is. Juneau is not currently growing and does not need to open up new space. We have a perfectly good bridge: the 2nd crossing feels like a luxury and a make-work project for the	Good afternoon Mr. Cohen, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	Survey

		benefit of developers, realtors and construction companies. I appreciate the contribution of all those groups; they have skills I don't. But I would prefer to see their valuable skills turned to more positive projects within our current infrastructure. Thank you for your attention.				

1/26/2023	Art Peterson	Hello, As a Juneau resident for almost 57 years, and a North Douglas resident for the first 45 of those years, I have to say, again, that a North Douglas crossing is neither essential nor possible without serious environmental damage. I support the analysis and comments of SEACC, and am very reluctant to see any degradation of North Douglas and its life-style. Generally, I oppose a second crossing of the channel. Thank you. Art Peterson P.S. Currently, I am out of town, and am unable to offer comments in person.	Good morning Mr. Peterson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	
1/26/2023	C. Matt Felix	As a N Douglas resident am against the crossing. This crossing would not reduce the traffic near my resistance would not be cost effective. The traffic over the bridge and on ND Hwy moves much easier now that there is a roundabout and widening of the Hwy. A crossing is simply not justified at this time. The people spoke with a negative vote in the past, they shall again if necessary.	Good morning Mr. Felix, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	
1/26/2023	Edward Hotch	Hello, in the years ahead when juneau can afford a second bridge crossing it should be built somewhere near engineer cutoff road. We are supposed to protect our wetlands, but more and more if you have money and connections, wetlands are not being a priority to protect which is a shame. A bridge by engineer cutoff would also keep the plane landing zone more safe for them to land. There are many long bridges in the USA, so we all knoe a long one can be built which will also	Good morning Mr. Hotch, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		allow boats to dtill use the channel at high tide. Save our wetlands, font let greed take sway our sovereignty of wildlife. Thank you.				
1/26/2023	Greg Cook	Hi-- My wife and I have lived at 5 mile, North Douglas Hwy, for 44 years, so we are intimately familiar with the Mendenhall Wetlands and their multiple values. We have always staunchly opposed various iterations of DOT plans to build a bridge ("crossing") across the Wetlands. Every version of the project yet devised would destroy many of the values for which the State Refuge was created, as well as ruining the additional current uses. The CBJ population has been stagnant or shrinking for years, and Capital Creep will ensure that our population continues downward. There is no need for a Second Crossing--other than to ensure the continued employment of a vocal cadre of functionaries within DOT whose job it is to beat the drum for a "crossing" project that is unnecessary, duplicative, and destructive of Natural values. Thank you for this opportunity to comment.	Good morning Mr. Cook, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

1/26/2023	John and Millie Holahan	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge should not be advanced in the PEL study process or in an Environmental Impact Statement. Please spare this sensitive and valuable refuge from becoming an environmental shopping mall. Far too many of these habitats, throughout the world, are being exposed unnecessary traffic and damage. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Thank you,	Good morning Mr. and Ms. Holahan, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	
1/26/2023	John Roxburgh	I am writing about the Juneau North Douglas crossing project. I am skeptical that a project can be built across the Mendenhall Wetlands State Game Refuge that would not seriously impact the complex ecosystem there. I will not support any option that poses a risk to the many birds and other wildlife that depend on these wetlands. Let's be clear: This is an idea that has been around for years, conceived at a time when the capital city was bursting at the seams. That reality is long gone: Juneau is not growing these days, so there is no longer any economic rationale for a second crossing. This project is essentially a boondoggle designed to benefit politicians, construction companies, and	Good afternoon Mr. Roxburgh, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		people who bought cheap land in North Douglas. The community at large does not need it. I would rather see the money spent on better ferry service.				
1/26/2023	Morgan Hebert	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. IT IS TOTALLY UNNECESSARY. Gunalchéesh/thank you,	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

1/26/2023	Robert DIVELBESS	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are an EXCELLENT TRADE OFF BEST BALANCING THE NEEDS OF ALL STAKEHOLDERS and should ABSOLUTELY be advanced in the PEL study process or in an Environmental Impact Statement. In general, I am all about environmental conservation, but in this case, the protestations of the few, and loud, conservationists need to be balanced with the greater needs of the community. Gunalchéesh/thank you,	Good morning Mr. Divelbess, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	
1/26/2023	robin houston	To whom it may concern: As a part time resident of Haines, and frequent visitor to Juneau, I am writing in regard to the Juneau Douglas North Crossing PEL Study. In a time when fiscal responsibility is critical, I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. As a state and a nation, we face increasing problems that require attention, and money. Given that Juneau's population is stable or declining, the stated needs for this alternative route to N. Douglas are not convincing. In reality, this project is likely driven by the interests of developers seeing an opportunity to increase development in N. Douglas. Use of state and federal funds for such an effort benefit few, and these monies can be spent more wisely.	Good morning Robin, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/26/2023	M. McCammon	

		Thank you				
1/26/2023	Winston Smith, Stakeholder Advisory Committee Member and Juneau Audubon Society Board	Voicemail - Good morning. This message is for Morgan McCammon. My name is Winston Smith. I'm with the Juneau Audubon Society board. I'm calling to try to arrange a meeting between a subcommittee of the board of the Juneau Audubon Society with DOWL to discuss and offer comments in person regarding the second crossing. My number is [redacted]. When you get this message, I would appreciate your returning my call. Thank you.	Morgan returned this call. He said four board members would like to meet with the study team prior to the February 2, 2023, survey response deadline. Morgan is arranging this meeting.	1/26/2023	M. McCammon	Advisory committee comment

1/26/2023	Winston Smith, Stakeholder Advisory Committee Member and Juneau Audubon Society Board	Voicemail - Yes, good morning. It's Thursday morning, January 26th, a little bit after 9:00 o'clock in the morning. My name is Winston Smith. I'm a board member with the Juneau Audubon Society. I'm calling to try to arrange a schedule a meeting between a subcommittee of board members of the Juneau Audubon Society who would like to meet with DOWL in person if possible, and offer some comments and maybe have a brief discussion regarding the second crossing. And so I've reached out to Morgan, her direct number and was unable to reach her. Left a message. Thought I'd call the office and see if I couldn't speak with someone else and the receptionist or whoever it was that answered the phone transferred me to you. So again, my name is Winston Smith. My number is [redacted]. When you get this message and you have a moment, please give me a call back. I look forward to hearing from you. Thank you. Bye now.	See above	1/26/2023	M. McCammon	Advisory committee comment

1/27/2023	Annette Coomber	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/27/2023	AR Coomber	• This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) • The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Lemon Creek, Mendenhall River, and Fish Creek estuaries. For more information on the ecosystem services provided by Southeast Alaska estuaries, check out the SeaBank 2022 Annual Report on Page 20 — Highest Valued Ecosystems: SeaBank Estuaries. • There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. • Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. • The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable.	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

		• there are better ideas than crossing the Mendenhall Wetlands State Game Refuge. • PLEASE ask yourself, what kind of community do we want to pass on to future generations? A thoughtful community that works to minimize its impact on critical natural areas, or one that goes pedal to the metal chasing illusive growth? Thank you for your time. Sincerely,				

1/27/2023	Cole Grabow	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/27/2023	Dennis Schaef	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why:This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Lemon Creek, Mendenhall River, and Fish Creek estuaries. For more information on the ecosystem services provided by Southeast Alaska estuaries, check out the SeaBank 2022 Annual Report on Page 20 — Highest Valued Ecosystems: SeaBank Estuaries. There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members.	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

		Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration				

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1/27/2023	Dwight Wolfe	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Jill Wittenbrader	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Jill Wittenbrader	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/2/2023	M. McCammon	

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1/27/2023	Kris Olsson	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Lisa-May Reynolds	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Monica Ritter	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

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1/27/2023	Rebecca Lexa	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Stephen Szibler	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	

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1/27/2023	Virginia Bottorff	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. (My personal comment: We are at a crisis point on our planet. Decisions we make now will impact whether or not we have a future upon it and for how long. Our future and the future of all plants and all animals was grabbed by us for somehow, even though we have no right to it, and have made many, many mistakes in the past! For that reason alone, even though there are many others, I believe strongly we have to make thoughtful, not frivolous decisions. And if we think clearly enough, we will know what is right, and what is right in this case is written above and below my personal comment. Virginia Bottorff) Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

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1/27/2023	Gabriel Cohel	To whom it may concern: I am writing in regards to the second crossing proposed from Juneau to Douglas island. As a lifelong Juneau resident and current resident of North Douglas I OPPOSE building a second crossing. Not only do we not need it, it would impact my life on North Douglas in a negative manner. I am a sportsman and recreate on the wetlands during many seasons and I do not want it degraded or restricted by development. North Douglas residents do not want the second crossing. We choose to live here because it is further from town, we don't need another bridge bringing more crowds to our area. People who are sufficiently motivated to visit north Douglas can drive over the normal bridge. Do not wreck our recreation and natural food resources (fish and waterfowl) in the interests of a bridge no one needs. Thank you for your consideration,	Good afternoon Gabriel, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	Survey
1/27/2023	Joan Cahill	I guess from my subject line you get the drift. Of the many residents that call this area home, we humans are capable of eradicating so many others and planetarily we are doing just that. We must act locally, it's the best we can do. Salvage that precious habitat and leave it the heck alone, for crying out loud. Humans are mercifully reducing in numbers in this region. There is a word we need to learn: "enough". We have enough. Enough humans, enough places to live, enough stuff, enough roads. Leave the wetlands be, please.	Good afternoon Ms. Cahill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Best regards, Morgan McCammon	1/27/2023	M. McCammon	Survey

		Those migratory and resident creatures who live there don't have enough. Let them be.				
1/28/2023	Alan Jones	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

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1/28/2023	Bob Saviers	Attached please find my survey letter. Bob Saviers To Whom It May Concern: This is in response to a survey asking for public input on second channel crossings. In my 65 years here and four generations in Juneau, this process gets predetermined at this point, and clearly should not be. Especially when folks vote on a color of a road in a survey on a sketch. This public comment period effort itself is inadequate to the local impacts but allows a process to move forward that checks the right box. It merely pushes people to lawsuit as it is so poorly thought out as survey for CBJ marketing. It clearly makes no sense to bring a crossing along to the Mendenhall Peninsula that should be on Sunny Point or industrial Boulevard, if anywhere at all. We've known this for 30 years even though it's needless as a guised transportation NHS or city highway anyway. It is for other reasons. I've dealt with public comments during my time. It's box checking for the public comment period for CBJ; that's all, and, in this case, it's dart throwing. Talking to many folks on Engineer's Cutoff and Fritz Cove Road revealed they knew little of this nonsense. By not going door-to-door on adjacent adjoining continuous contiguous landowners for comments, this is a desired vote not a survey. It is pushed by Chamber of Commerce and others who are not personally impacted. It is, however, for revenue-rewarded organizations that receive direct benefits from it. It helps CBJ politically to take an easy way out and appease vested interests and allow large developer parcel low-income housing tracts with their CBJ tract bonding desires on it. We know this. But truly, working folk just assume common sense says nah I don't have to state the obvious and don't	Good morning Mr. Saviers, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I'm glad you were able to get these comments to me. I have shared your comments with the project team and added you to the project contact list. We are working on a response. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

		respond to these as the impacts are not stated. As a result, things like this get decided with little comment facing the citizenry. We assume common sense free from partiality will result, but it doesn't because there is little personal contact. Since this is the biggest impact area, the outreach effort should be much more. We do not have any big signs out here, no door-to-door by CBJ, Mayor's Office, etc. Morally, that is what needs to happen—takes some effort though. Like trying to appeal your assessment or subdivide property on Engineer's or Fritz Cove. You can't get through the first layer of brain tissue. It's odd that in lieu of high taxes, a Hospital in need of support , needed infrastructure and hydroelectric upkeep, garbage dumps, needed recreational hunting areas, a higher cost of living, higher property assessments, etc., that this is even in the works and is also patently absurd right now just to bring in tax revenue. We shouldn't do any of these crossings at all. But I know the process starts well before this; if FAA, for instance, has given preliminary permit approval prior to this report or funded the EIS and allowed the permits and/or studies, I will fight the north channel crossing to Mendenhall Peninsula with gusto for the same reasons the FAA did not reach out. We multi-generational families just do not trust the city's motivations in the town anymore. I also do not see the cost of a 50 million dollar bulb t bridge, impacts on Divac, local negative impacts on property, wildlife, eagles and their nests (of which I can see 2 from my house), green belts offered, fish creeks, hunting fishing, etc. It's a survey; I get it. But you've seen the responses of				

		these many times before. The survey lacks upfront impacts. Perhaps an EIS would help. Nothing like this poor planning effort would unite folks better and planning should be embarrassed. That is because of no upfront little or no thought to environmental impacts, no build areas, green strips or adjacent purchase options to local homeowners are even pre thought....and with little care to their lifestyle and what they've paid to have this lifestyle in too high assessments and property taxes, CBJ again divides the citizenry through poorly thought out schemes. CBJ would rather hang on to their mantle of preferential zoning and promoting sewer, bonds, lids, puds, privatized interests, etc. No trust in these folks. I will fight this, and the answer is no. Put the damn thing at Sunny Point. Bob Saviers				

1/29/2023	Linda Blefgen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

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1/29/2023	Richard Farnell	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/29/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/29/2023	Alisha Falberg	Hello, Please find my comments attached. Please verify receipt. Thank you, See comment letter 2023_01_29_A_Falberg_Comment_Letter.pdf	Good morning Ms. Falberg, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. We are working on a response. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

1/30/2023	Linda Blefgen	Dear Mayor and Assembly Members, The following are my concerns regarding the current attempt to establish a second crossing. To date there is still no community plan for North Douglas. Collaboration is essential for a quality product. An outcome that meets more than, what appears to be, a developers and chamber of commerce agenda thinly veiled with traffic and emergency service concerns. A thoughtful plan for North Douglas would include a long and short term plan for the larger Borough and reflect the needs for, housing, open space, access to water, transit, neighborhood visions, non-motorized paths, and recreation. Climate change is a variable that must be included in all discussions. What will future needs be and what is sustainable? Nothing I have read or heard indicates a current population increase or any future exponential population growth. Quite the opposite. The proposed crossing at the Mendenhall Wetlands is short sighted at best. Why is DOT determining community needs? It would appear a proactive CBJ would have a North Douglas community plan in place prior to the current crossing proposals. Access to development for whom? The proposed Pioneer Road development from what I have seen is for high end homes. What about development for local residents to own recreational cabins? A great opportunity for non-boating families. Thank you. Linda Blefgen	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

1/30/2023	Jan Crichton	I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — The Mendenhall Wetlands Refuge was set aside to protect and provide rest, food, and shelter for the migrating and resident birds, the rearing fish in the estuaries, and for public non-motorized use because of its extremely scenic beauty and open-space grandeur. It has a major value (well-documented) as a bird refuge, wildlife habitat, critical ecosystem mechanism, and is a recreational favorite (the most used trail in the Juneau area). Migrating birds fly hundreds and thousands of miles, exhausted, and depend on this open roadless estuary a safe harbor for much-needed food and rest. Some fly from as far as southern South America. Many fly on to Northern and Coastal Alaska to reproduce, and need this stopover in both directions. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are completely at odds with the serious purpose of this refuge and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — Wetlands is a key word here - The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the critical Salmon Creek, Mendenhall River, and Fish Creek estuaries, which rear much of the salmon we expect to grow healthy and enter	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/30/2023	M. McCammon	

		our saltwater, to fuel and sustain our commercial fishing econony and sport fishing tourism economy. Our salmon runs are already falling due to other stresses, and this could tip the remaining balance in the wrong direction. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase housing density on North Douglas, creating a demand for new far-flung public services, at a cost burden for all community members. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation, and partial remote working hours or days for state and federal employees. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/31/2023	guenter math	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Math, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/1/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

1/31/2023	Marquam George	Greetings, I've been a North Douglas resident and property owner since 1979 residing between the 5 mile and 6 mile highway markers. I love North Douglas. I feel a second crossing could be a benefit if it's located correctly otherwise I see it more of a tragedy. The first three crossing options from the bridge; Eagle Creek, Salmon Creek and Sunny Point would be tragedies in my opinion. They provide a second crossing but they don't offer any relief in creating a large enough transit loop to ease growth. It's also disheartening to think how many households would need to be demolished in order to construct any one of these three crossings. Vandebilt Hill and Sunny Point crossing options are an affront to nature from my perspective. I routinely walk between channel markers 15 and 17. This area is one of the crown jewels of Juneau. From the North Douglas pavement it would be necessary to cross muskeg, old growth forest, and grass wetlands before reaching the channel. I can't see how the flora and fauna of this area could tolerate a second crossing and still be a jewel, These two crossings should be removed to preserve these unique ecosystems. The North Airport underground crossing is interesting, I'll leave it at that. I could support the Mendenhall Peninsula crossing. In the mid 1990's as a planning commissioner I spent close to two years with fellow commissioner's holding meetings updating the CBJ Comprehensive Plan. Much of our discussions focused on the future expansion of North Douglas	Good afternoon Marquam, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/31/2023	M. McCammon	

		and West Juneau. This is underway already with the many dollars spent constructing the new Pioneer Rd. I recall components within the Comprehensive Plan including construction of a deep water port that could benefit both cruise ships and barges. A walkable community much like Auke Bay was a part of the plan along with a second crossing that connected to the North Douglas Hwy near the boat ramp. If we have to have a second crossing, locating it near the boat ramp would provide more benefits than any of the other crossing options in my opinion. Respectfully,				

1/31/2023	Mendenhall Wetlands Study Group	See comment folder. Mendenhall Wetlands Study Group Second Crossing to Douglas Recommendations and Comments January 30, 2023	Hi Ron, Thank you for working with us to make sure we were able to get a copy of your comments. We appreciate the work the group has put into these. Additional Response Good morning Ron and Mendenhall Wetlands Study Group, Thank you again for the comments and your continued involvement in the PEL process. I forwarded these comments to the Environmental Team to assist with the response. The DOT&PF and DOWL Environmental Team includes environmental scientists, professional wetland scientists, archaeologists, fisheries biologists, hydrologists, and a host of other subject matter experts. They are currently evaluating more than 20 natural resources present in the project area and are developing a detailed document focused solely on these resources that will be a part of the final PEL Study. This document is not yet available to the public. It will be shared with the Advisory Committees and online when completed later this spring. The maps and data presented to the public and available on the website provide a basic level of detail so that the information is understandable for everyone. The final PEL will include the legal context and issues related to wetlands, including impacts to the Refuge, as well as all evaluated natural resources. It was announced in the January 3, 2023, Juneau Empire article that $7 million in federal money was	1/31/2023	M. McCammon	Advisory Committee Comment - Meeting 2

			earmarked to continue work on this project following completion of the PEL Study. This would include a full NEPA process, along with any other required environmental process. The NEPA process will be a comprehensive document that will likely assess a full range of alternatives, including an evaluation of effects to resources to determine which alternative meets purpose and need, are feasible, and comply with agency regulations. It is at this stage that formal agency consultation will occur. By engaging in the PEL process during the planning stages for a Juneau Douglas North Crossing, prior to the environmental processes beginning, regulatory and local agencies, as well as the public, have opportunities to help shape this transportation project by getting involved in the early stages of planning and raising concerns to the project team. The information you provided on environmental resource values is appreciated. Your local knowledge and context are exactly the kind of input we seek at this PEL study stage. Please let us know if you would like to schedule another meeting. Best regards,			

1/31/2023	Michael Stanley	Dear Ms. McCammon and JD North Crossing Study Team, Attached please find the comments of the North Douglas Neighborhood Association, Second Crossing Committee, on the PEL Study preliminary alternatives and the screening criteria outlined in your technical memorandum. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you. Mike Stanley Chair, Second Crossing Committee NDNA See letter dated 1/31/2023	Good morning Mike, Thank you and the Association for the comments. We appreciate your input. Morgan McCammon	1/31/2023	M. McCammon	Advisory Committee Comment - Meeting 2
1/31/2023	Rueben Glaves	Hello, I am writing this to oppose further incursion into the limited and heavily inundated wetlands at the mouth of the Mendenhall river. We built an airport, they are developing some gas station and additional shopping space and now this major infill and impact to the wetland. Wetlands are critical habitat to birds and fish, this is going to add another major issue to an already degraded ecosystem merely for convenience sake. If a second crossing is really for safety sake then have it closer to the hospital, where it splits the difference between the valley and downtown while ensuring the fastest route to the hospital. I hope common sense prevails. Rueben	Good morning Rueben, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	1/31/2023	M. McCammon	

2/1/2023	Jeanette McBride	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — Any plans to cross the Mendenhall Wetlands State Game Refuge should not be advanced in the PEL process or in an Environmental Impact Statement. This refuge is too important for wildlife, habitat, and ecosystem services to be sacrificed for a bridge that might not be necessary. — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. It would be foolhardy not to reconsider this entire idea. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-	Good morning Ms. McBride, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/2/2023	M. McCammon	

		crossing opportunities such as improved public transportation and area-wide housing density improvements. Improved public transportation should be the priority, as single occupancy vehicles are responsible for many problems, not just clogging the bridge. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. We have a responsibility to the future generations. Gunalchéesh/thank you,				

2/1/2023	Samuel Roberts	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Roberts, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/1/2023	John W. Schoen, Ph.D.	I currently live in Anchorage but previously lived in Juneau from April 1977 to June 1989. I visit Juneau infrequently now. I do not think there is an economic justification for the North Douglas Crossing at this time. The priorities for this project do not compete with other Alaska transportation projects including the Marine Highway System, airports, or highway maintenance and construction. Further, the environmental impact of this project to the Mendenhall State Game Refuge, wetlands, shorebirds and waterfowl, and local anadromous fisheries would be substantial and do not justify a North Douglas Crossing. Thank you for the opportunity to comment on this significant transportation proposal. Sincerely,	Good morning Mr. Schoen, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/1/2023	M. McCammon	
2/1/2023	Rober and Gretchen Pederson	We are opposed to the proposal for the Juneau Douglas Second Crossing. There is no need for this in the immediate future, if ever, and we think that it would have tremendous negative impacts on the Mendenhall Wetlands State Game Refuge.	Good morning Mr. and Ms. Pederson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/1/2023	M. McCammon	

2/1/2023	Ron Somerville	Morgan, the Juneau Shooting Sports Foundation has voted to support the document submitted by the Mendenhall Wetlands Study Group. I have attached another copy for your records if needed. If our tabulating votes, the Foundation has 9 members. Thanks Ron Somerville	Good afternoon Ron, Thank you for sharing this information about the Shooting Sports Foundation's support of the letter. Morgan McCammon	2/1/2023	M. McCammon	
2/1/2023	Ryan Beason, President Territorial Sportsmen President	Hi Morgan, Territorial Sportsmen Inc. supports the Mendenhall Wetland Study Group comments which have been previously submitted. Thank you for your time. -Ryan Beason, President Territorial Sportsmen President	Good morning Mr. Beason, Thank you for sharing the Territorial Sportsmen's support of these comments. We appreciate your continued involvement in the PEL study. Best regards, Morgan McCammon	2/2/2023	M. McCammon	

2/2/2023	Bruce Connery	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. The reasons are: — The alternatives fail to recognize the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. As such, there is no reason to move ahead on the PEL process or with the development of the Environmental Impact Statement to consider crossing the Mendenhall Wetlands State Game Refuge. It is upon you to watch "The history of the refuge" before proceeding. — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Connery, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/2/2023	Kathy Coghill	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. Coghill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you, Kathy Coghill kathycoghill@yahoo.com 10600 Horizon Drive Juneau, AK 99801 United States				

2/2/2023	Kyler Romme	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Romme, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/2/2023	Marlin Bowles	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Bowles, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				
2/2/2023	Jason Keedy	We do not need a second bridge. It will have significantly negative impacts on the north douglas community and will disrupt the sensitive habitats that wildlife depend on and Juneau community enjoys. There are zero reasons why we can't look into improved public transportation and area-wide housing density improvements, rather than this enormous expense that is environmentally degrading. The demographics studies show population trends are down, so why would we need	Good afternoon Mr. Keedy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	2/2/2023	M. McCammon	

		to open up and disrupt a community treasure like North Douglas? Our Douglas community is against this and think this is a mistake.	Morgan McCammon			
2/2/2023	Kathy Coghill	To: DOT Date: Feb 1, 2023 Regarding: Second Crossing I bought my first house in downtown Douglas in 2001. More recently I moved out past mile 8 on North Douglas. In all my years of living on Douglas, crossing the channel 2x/day, 5 day/wk for work, I have never felt any need or any wish to have a second bridge across the Channel. Please note that I absolutely detest traffic congestion. I have no tolerance for it and that is why I live in Douglas. I live in Douglas solely because it is not congested compared to all the other greater Juneau options. The Dowl report (2022) is highly inaccurate in its characterization of "congestion" at the bridge. They exaggerate "a problem" which then can be "fixed" by a Northern crossing. This is misleading and does not provide for good decision making. During road construction on Douglas several years ago the congestion was bad, but that was due to temporary sections of single lane road (with flaggers and one-way traffic). It was not due to the normal density and flow of cars through the Douglas/Juneau corridor.	Good morning Ms. Coghill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/2/2023	M. McCammon	

		That aside, a reasonable argument can be made that we need a second crossing for safety reasons. If the current bridge became damaged, those of us on Douglas could experience some hardship, especially those who are medically vulnerable. So, it is reasonable to plan for a second bridge, but not at the northern end of the channel where environmental and fiscal costs would be orders of magnitude greater. But wait!!! Before we go spending vast sums of money on redundancy for our channel-crossing ability, we need to focus on restoring fundamental, basic, and reliable ferry service to Angoon, Sitka, Pelican, Tenakee, Hoonah, and Gustavus. Given the recent (many-year) failure of the Alaska Marine Highway to provide the most basic service to these communities, DOT has quite a burden to prove that it has concern for the well-being of residents in this region. The number one priority for Southeast Alaska transportation must be to restore reliable Marine Highway transportation. Get that one right before launching into a back-up plan for the currently functional bridge across Gastineau Channel. Also, please show us this second crossing project is not just another grab for ever more development blight that makes a lot more money for a special few, while destroying the quality of life for the rest of us. Do the right thing and focus on the ferry system first. Then, and only then, if you move on to a second crossing, focus on resident safety and the health of our ecosystems, not on setting up developers for another sweetheart deal (which some might call disingenuous and self-serving).				

		The number two priority when considering transportation and the proposal for a second crossing, must be to choose the least expensive option with the least impact to wetlands. Impacts to wetlands must be kept to an absolute minimum when choosing the location for a second bridge. Given the expanse of wetlands that reach from the Mendenhall Peninsula all the way to Twin Lakes, the three most northern (western) alternatives should be categorically rejected due to the massive impacts to the wetlands (and due to the massive costs associated with choosing a much longer path for a bridge that requires damage to greater acreage at greater financial cost). That is a lose/lose prospect, and no additional time or effort should be wasted on fleshing out those alternatives. The only acceptable options to consider for a second crossing (after restoring ferry service) are those starting further south/east where the structure will be a fraction of the length of the northern options, thus greatly reducing both the fiscal and environmental costs. In Summary: 1) Top DOT priority for Southeast Alaska needs to be restoring fundamental and reliable marine highway service to Angoon, Sitka, Pelican, Tenakee, Hoonah, Gustavus. 2) A second crossing over Gastineua Channel is a luxury, and should not be pursued until the Southeastern portion of the Alaska Marine Highway is functioning at least as well as it did in the 1990's. 3) If a second crossing is pursued for safety reasons (assuming the Marine Highway has been			

		restored), it needs to stay out of the wetlands. Absolutely no ruination of any of the lands north or west of Lemon Creek should be tolerated under any circumstances. Thank you for the opportunity to comment. Kathy Coghill				

2/2/2023	MaryAnn Dierckman (sp?)	Hi Morgan and Nina, I took a phone call from MaryAnn Dierckman (sp?). She is wondering if it is possible for her to receive a copy of the survey she submitted. She included her name, so we may be able to find it. She was concerned that it wasn't clear where it is going after hitting 'done' and that there is no opportunity to have a copy, and no notification that it will be part of public record. She's also concerned that our outreach has been primarily web-based (email, website). She'd love to see us post a couple posters around town to catch more people that are not online. She mentioned the mall and libraries. Marie Heidemann	2/6/23 - Morgan shared Ms. Dierckman's survey response with Marie to pass on.	2/2/2023	M. Heidemann	

2/2/2023	Philip Pallenberg	I am writing to comment on the preliminary alternatives for the second crossing. My family and I live at 8830 North Douglas Highway, and the Sunny Point route would connect to North Douglas Highway very near our home. It is essential that all of the impacts of each of the alternatives be presented and considered equitably, on a level playing field. The language of the description of the preliminary alternatives gives me some concern about whether this is being done. For most of the alternatives, the description suggests a need to consider the impact on existing residents. For example, for Mendenhall Peninsula, it says that impacts to existing residential homeowners will be a key consideration. For North Airport, it says that there will be a need to explore alignment options that reduce impacts to residential properties on Douglas Island. And for Salmon Creek and Eagle Creek, the descriptions say that there may need to be right-of-way acquisition on Douglas Island. For the Sunny Point and Vanderbilt alternatives, by contrast, the descriptions say that the road may be able to connect to North Douglas Highway using CBJ property. There is no mention of any need to consider impacts to existing homeowners or a need to acquire properties for the right-of-way. I am concerned that this may reflect an assumption that, if the road itself passes over CBJ owned property, there will be no need for property acquisition, and no need to consider impacts to existing homeowners. If that is the assumption that is being made, it is incorrect.	Good afternoon Mr. Pallenberg, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/2/2023	M. McCammon	

		I am guessing that the CBJ-owned property that is being referred to with respect to the Sunny Point alternative is the CBJ property immediately to the east of our house at 8830 North Douglas (between our house and 8752 North Douglas). Even if that CBJ lot is wide enough for the road itself, building a highway over that property would destroy the quiet enjoyment of our property, and would drastically reduce our property value, for which the CBJ (or the State) would have to be financially responsible. I imagine there would be a similar impact to other homeowners in the area. The Sunny Point alternative cannot be fairly considered without looking at those impacts, and the cost of acquiring affected properties or compensating homeowners for their lost property value. I suspect the Vanderbilt alternative would have similar impacts on homeowners, even if the route goes over CBJ property. I would ask that the study recognize the impacts on nearby homeowners for all of the alternatives, and acknowledge the likely costs of addressing these impacts, even if the right-of-way itself passes over CBJ owned property. Thank you for allowing me to comment on the preliminary alternatives.				

2/2/2023	Rebecca Bellmore Science Director Southeast Alaska Watershed Coalition	Dear Ms. McCammon and the Juneau Douglas North Crossing PEL Study Team, The Southeast Alaska Watershed Coalition appreciates being included in the Juneau Douglas Crossing Stakeholder Advisory Committee and all your efforts on the PEL Study to date. The Watershed Coalition is committed to promoting community-based watershed stewardship that reflects and supports people's deep cultural and economic connection to the land and water in this region. The Watershed Coalition does not own land or have a financial stake in the ultimate outcome of the Crossing decision-making process. Rather, we are interested in ensuring that the best available information about potential environmental impacts informs the decision-making process, and that this information is shared effectively with the public, which may ultimately make the decision about whether or where to build a crossing. We have three key concerns and suggestions at this time: 1. Solicit meaningful feedback on alternatives and the assessment process: From our perspective, meetings to date have provided little substance for the Stakeholder Advisory Committee to respond to. Maps with approximate locations of potential crossings in the absence of any detailed information about land ownership, environmental context, or other potential restrictions/considerations have made it very difficult to provide much meaningful feedback on alternatives. Assuming similar information has been shared with the Technical Advisory Committee, we have concerns about how participants' expertise is being effectively solicited and incorporated into the alternatives assessment process. We strongly encourage the project team to meaningfully engage with relevant agencies and experts during Phases 1 and 2, giving them	Good afternoon Ms. Bellmore, Thank you for sending comments. We appreciate your participation in the Stakeholder Advisory Committee. Morgan McCammon	2/2/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		sufficient time to assess information that is provided and contribute any new information/data that the planning team does not currently have access to. This will help to ensure that the best available data is being used, and expert knowledge can inform an assessment of how well alternatives "avoid, minimize, and mitigate impacts to the environment" and meet other project needs. 2. Broaden the assessment of environmental impacts beyond the project footprint: Linear feet of stream or acres of habitat impacted directly by the crossing may be similar across different options, but habitat quality, the species that utilize it, and its importance in the larger ecosystem cannot be captured with these metrics. Additionally, roads, bridges, and traffic impact ecosystems beyond their footprint by altering hydrologic dynamics, habitat character, and wildlife corridors. Just as impacts to and opportunities for residential and commercial areas are being considered in a community context, environmental impacts must be assessed beyond the footprint of the project. Engaging with relevant experts as suggested in comment 1 on these issues will provide insights beyond the number of (square) feet of habitat impacted. We strongly encourage the project team to explicitly incorporate a more thorough and scientifically valid assessment of environmental impacts in the assessment process. 3. Make data relevant to decision-making accessible to the Advisory Committees and public: We suggest that relevant GIS data that is being used to assess alternatives be made available (where legal) not only to Advisory Committees, but also to the public to help inform their assessment of potential impacts and benefits of potential crossings. A web map with relevant layers				

		compiled in one place would allow the public to explore potential impacts of the alternatives in a more meaningful way than current project maps provide for. Additionally, the recent traffic study has been repeatedly cited as supporting an important study need, but this data has not been shared with the Advisory Committees or the public (as far as we can tell). Having direct access to this study and underlying data would help people to understand more fully current traffic conditions, and, based on the origin-destination study, how much improvement could be expected from different alternatives. In summary, the Southeast Alaska Coalition suggests that appropriate experts be consulted in a meaningful way and have an opportunity to inform both the underlying data and the assessment process, that environmental impacts be considered more thoroughly than is currently proposed, and that the data that will be used to assess alternatives be made available to the Advisory Committees and the public in an accessible format. We believe taking these steps will help promote informed decision-making and responsible resource stewardship by the community as it determines whether/where to pursue a second crossing. Sincerely, Rebecca Bellmore Science Director Southeast Alaska Watershed Coalition				

2/2/2023	Stan Senner	Dear Madam/Sir: I am a former Alaska resident (Fairbanks & Anchorage) who often traveled to Juneau for work and who spent considerable time on Douglas Island. I am not now in a position to judge whether there should be a Douglas North Crossing, though I am not sure it makes sense economically and demographically. Regardless, my comment is that any alternative which crosses the Mendenhall Wetlands State Game Refuge should be removed from further consideration. I led development of and co-edited the Pacific Americas Shorebird Conservation Strategy, which you can find here: PASCSv2_english_final.pdf (pacificflywayshorebirds.org). The Mendenhall Wetlands are a critical part of the Pacific Americas Flyway, which extends from northwest Alaska to the southern tip of South America. Hundreds of thousands of migrating shorebirds en route to and from Alaska stop and use the Mendenhall Wetlands. Among them are declining species like the Western Sandpiper, and species of "high conservation concern" like the Hudsonian Godwit. Hence, the Mendenhall Wetlands are of far more than local importance. Although the residents of Juneau should and no doubt will have much to say about the proposed Douglas North Crossing, any actions (like a new bridge) that could impact shorebird populations (and other birds) and their habitats also must be considered in a national and international context. These migratory birds are shared resources, and hence there is a responsibility to consider the larger picture when evaluating alternatives for the proposed Douglas North Crossing.	Good afternoon Mr. Senner, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/2/2023	M. McCammon	

		I look forward to tracking this process and reiterate my opinion that no alternatives that involve crossing the Mendenhall Wetlands State Game Refuge should be considered further. Thank you for considering my opinion.				

2/3/2023	Tom Rutecki	To CBJ Assembly From Tom Rutecki please see my comments that are due today February 3 on the second crossing. It looks like CBJ Will be involved in this process in due time as it was when it came up for vote some years ago. I would just like to caution the assembly not to support any alternative that crosses through the wetlands.see my comments on AS 16.20.034, the Mendenhall Wetlands State Management Plan. If one of the alternatives is selected that goes through the wetlands there will be many years of litigation and it would be best to select other alternatives as I have in the last paragraph of my narrative. Bye Tom Thank you for the opportunity to comment on the North Crossing PEL Study Preliminary Alternatives. There is very sparse information provided on each alternative, which makes it difficult to review them. However, there are some general characteristics for the alternatives that can be used to prioritize which ones go forward to Level 2 screening in your process. The primary need identified for the crossing is alternate access and infrastructure resiliency. Alternate access would allow for access to emergency services, especially transport to the hospital, should the existing bridge be somehow blocked or compromised. The Scoping Document also states that an alternative should reduce traffic pressure on the Douglas Island Bridge and intersections. All of the	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		alternatives meet these needs in some fashion, except perhaps for the Downtown. Again, there is no design detail, but it seems likely that a situation compromising the existing crossing could also impact this alternative. For the other seven alternatives, there is a gradient to how well they meet the emergency access concern, especially in terms of medical transport. The two alternatives northwest of the airport would not improve transport times for the vast majority of Douglas residents, and would greatly increase transport time for this population if the current crossing was compromised. Of the alternatives southeast of the airport, the Salmon Creek crossing stands out the best alternative to provide reduced transport/response time, with it placing you at the intersection with the hospital. The alternatives also have a range of impacts or benefits relative to the additional goals identified for the projects. For example, there is a north to south gradient in how well the alternatives improve access to North Douglas Island to support economic development. I am particularly concerned with how well the alternatives “avoid, minimize, and mitigate impacts to the environment…” and “maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.” It is difficult to overstate the ecological, environmental, and scenic importance of the wetlands encompassed by the study area. The Mendenhall Wetlands are a Globally Recognized Important Bird Area, providing				

		critical habitat for migratory and resident birds. The Wetlands are also important fish and wildlife habitat and heavily utilized by human hunters and fishers, as well as birders, dog-walkers, joggers, the list goes on. The scenic viewscapes are recognized in the Juneau Comprehensive Plan, including the view from North Douglas towards the Mendenhall Glacier and up Stephens Passage, and the view inbound from Egan towards Gastineau Channel. The State of Alaska recognized the importance of the Wetlands by establishing the Mendenhall the State Game Refuge. We also need to recognize that over 40% of the original wetlands have been filled and developed since the gold mining boom of the late 19th and early 20th century up until today. The incremental destruction and sectioning of the wetlands emphasizes the need for choosing a crossing alternative that has minimal impact on the integrity of the refuge and the ecosystem functions of the Wetlands. The best way to maintain the integrity of the refuge is to keep the crossing out of the refuge. In accordance with AS 16.20.034, the Mendenhall Wetlands State Management Plan specifies that the use for a public transportation corridor is allowed only if “there is significant public need for the corridor which cannot be reasonable met off-refuge”. For the Second Crossing, there are alternatives that could be designed so they do not encroach on the Refuge. Excluding Downtown, these are Eagle, Salmon Creek and the two				

		northwest alternatives. The other three alternatives (Sunny Point,Vanderbilt, and Twin Lakes) would directly impact the refuge. The amount of impact would vary with the type of structure, with earth-fill causeway causing the most damage from the fill, changes to the hydrodynamics of the tidal flows through the southern refuge, and forming barriers to fish, bird, and wildlife movement. These alternatives also would impact the scenic viewscape to a much greater degree than Salmon Creek or Eagle. By far the worst of these alternatives is the Sunny Point crossing in terms of environmental and scenic impact. The two Northwest alternatives could be designed to minimize wetland impacts, depending on how the entry/exit points are designed. By going under the Refuge, a North Airport tunnel could result in minimal environmental impact, as long as the entry/exit points were well upland. The Mendenhall Peninsulacrossing could be aligned to stay out of the Refuge at the Peninsula, then make landing west of the North Douglas boat ramp. As noted before, these alternatives best meet the perceived need for access to North Douglas development (and Eaglecrest from the valley), but are also lowest in terms of emergency access. The cost is also likely to be very high relative to other options. The Mendenhall Peninsula option would also disrupt the highly-valued viewshed and require significant development to provide access from Glacier Highway. Salmon Creek and Eagle are the best options to					

		minimize impacts to the Refuge and associated wetlands. Salmon Creek has the advantage of an existing interchange, and as noted early on, provides the best emergency access. Eagle is a bit more removed from the Refuge and viewscape, but would require a new intersection on Egan and as described in the alternative descriptions, could have avalanche issues. Of course, every mile south decreases savings in travel time to Eaglecrest and North Douglas relative to more northern alternatives, but those out- comes are a reasonable trade-off for the benefits of maintaining the integrity of the Refuge and the ecosystem processes that sustain it. In conclusions, I recommend the Eagle, Salmon Creek, North Airport, and Mendenhall Peninsula options move forward to Level 2 scoping. While I think that Salmon Creek is the best option, considering these four alternatives in detail would allow quantitative comparisons of the environmentally acceptable options in terms of emergency access, transportation facilitation, neighborhood impacts, and costs.				

2/3/2023	Charlie Martelle	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Martelle, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/6/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. I use the Mendenhall Wetlands for recreation, wildlife viewing, hunting and fishing. A second crossing will have a negative impact on the natural resources, landscape and enjoyment of this area for myself and others that value this resource. Gunalchéesh/thank you,				

2/3/2023	Jamalea Martelle	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. Martelle, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/6/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/3/2023	Scott Pearce	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Pearce, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/3/2023	Chas Dense and Cristi Herren	To whom it may concern: Thank you for the opportunity to comment on the proposed Alternatives for the Juneau Douglas North Crossing PEL Study. We offer for your consideration our comments: PURPOSE AND NEED We realize Purpose and Need have already been reviewed. However, we believe some Purposes and Needs you have identified are really "wants" and should be considered as such. To us, the most important and appropriate Purposes and Needs are related to emergency response and public safety. We consider other purposes are in a "secondary" category and our comments are intended to reflect that. Further, we also believe that because there are reasonable alternatives that meet the Purpose and Needs and do not impact the Mendenhall State Game Refuge MSGR), those alternatives should be the only ones considered. In other words, mitigation efforts end at avoiding impacts within the refuge because there are reasonable alternatives. The refuge is the third largest tidal salt marsh area in Southeast Alaska and is already heavily impacted from development and subject to several mitigation efforts that may not even be located offsite and do nothing to help the refuge retain its productivity. ALTERNATIVES THAT SHOULD BE CONSIDERED The following alternatives will avoid impacts to the Mendenhall State Game Refuge and should be the only alternatives that move on to the Level 2 Screening Process.	Good afternoon Mr. Dense and Ms. Herren, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		1) NO ACTION 2) SALMON CREEK Salmon Creek is our Preferred Alternative. We believe this alternative best meets the Purpose and Needs for emergency response and public safety. It provides the most direct route to the hospital and is on the Mendenhall Valley side of the Mount Juneau slide area which would provide downtown and Douglas Island with an alternative access to the hospital in case all direct access is along Egan Drive and Glacier Highway cut off. There certainly would be impacts to anadromous fish habitat and mitigation would be necessary. However, this is also the most expedient access to the hospital which best meets the most important emergency and safety purposes and needs of all the other alternatives. This alternative also reduces by about 7 miles (3.5 miles each side of the Juneau-Douglas bridge) for those wanting quicker access from Mendenhall Valley to Douglas Island. 3) EAGLE CREEK This is not likely a realistic alternative, given the fact that it is within part of the Juneau avalanche zone. 4) DOWNTOWN If the project process eliminates all the other alternatives, expansion of the existing bridge or a new adjacent bridge could at least satisfy some secondary needs of releaving congestion. ALTERNATIVES THAT SHOULD BE DROPPED FROM CONSIDERATION TO AVOID IMPACTS TO THE MSGR				

		1) NORTH AIRPORT As intriguing as a tunnel seems, this alternative would probably result in the longest distance and time to reach the hospital of all the other alternatives. Further, the long term demographic forecast does not indicate any significant population growth that would create sufficient demand for significant population growth further out Douglas Hiighway. It would also cause significant impacts to the MSGR. 2) SUNNY POINT AREA This Alternative would cause significant impacts to the MSGR and likely create significant opposition and perhaps litigation and delay. It also could go through lands managed by the Southeast Alaska Land Trust where mitigation is likely to be difficult, if not impossible. 3) VANDERBELT This Alternative would cause significant impacts to the MSGR and likely create significant opposition and perhaps litigation and delay. 4) TWIN LAKES This Alternative would cause significant impacts to the MSGR and likely create significant opposition and perhaps litigation and delay. Sincerely,			

2/3/2023	Cinda Stanek	To Whom It May Concern, Following are my comments concerning the Juneau Douglas North Crossing, a.k.a. the Second Crossing. I appreciate the opportunity to provide input. • North Douglas Resident Input North Douglas residents need to be considered and need to have a significant voice in the second crossing discussions, process, and beyond. The potential impact to North Douglas residences and neighborhoods is huge. • Justification For The Second Crossing Throughout the process, several justifications have been given for a second crossing. However, a priority justification has not been clear. If the priority is for developable land on the backside of Douglas Island, I submit the population of Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. Our population projections do not support development of more remote lands, including the services cost burden for all community members. If the priority is for a back-up bridge and access to emergency services, the northern bridge alternatives would have unacceptably long access times to emergency services for the 5,000+ residents on the island. The furthest north crossings could create a deadly amount of EMS transport time for the majority population of Douglas Island residents (Douglas and West	Good afternoon Ms. Stanek, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		Juneau). • Bench Road The evaluation and planning of a second crossing must go hand-in-hand with the planning of, and funding for, a bench road on Douglas Island. DOT&PF has stated the current North Douglas Highway cannot handle the increased projected traffic that would result if a second crossing was built. The current highway is not adequate for carrying today's level of traffic, let alone the increased traffic a second crossing would add. • Mendenhall Refuge and Mendenhall River Estuary The Mendenhall State Game Refuge and the Mendenhall River estuary must be protected from any second crossing development. This includes development on, under, or adjacent to these fragile and important ecosystems. Development should not impact these lands and waters in any way – they should not be the least bit compromised. Thank You,				
2/3/2023	Cricket Keedy	I feel like there is an underlying Reason for this that is not being mentioned. Not to mention the population is not growing and the negative environmental impact. Living in Juneau and Douglas is one of the purest and most beautiful experiences I have had. The wild life ,the peace. There is so much to consider. Please consider the many lives that will be impacted animal ,human,and land . This is a beautiful place we don't need more city	Good afternoon Ms. Keedy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	2/3/2023	M. McCammon	

		Thank You,	Morgan McCammon			
2/3/2023	Fred Hiltner	To Whom it May Concern: I live on North Douglas Island and have lived here for thirty-five years. North Douglas is a special place that is unique in the world. Its 53 square miles is bordered by a protected wetland refuge on one side, and Stephens Passage on the other. It is full of a huge variety of wildlife- from wolves and bears to swans and many other migratory birds. Truly, it is like no other place in the world. Let's be careful while we consider disrupting this unique community. Unless there was truly an overarching issue of access, a bridge that will damage the wetlands forever, overload an already crowded highway, and change the character of North Douglas for generations to come would be an irreparable mistake. I have talked to many North Douglas residents about a second crossing. All I have talked to oppose the second crossing. Some on the mainland call out that we need quick access to the hospital. Rather than true concern, this comes across as self-serving. Please don't say you are doing it for us! We oppose it!	Good afternoon Mr. Hiltner, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		North Douglas residents have accepted the risk of the remote possibility of an emergency arising if the Douglas Bridge is ever compromised beyond use. And, if that sort of situation did arise, there are plenty of helicopters, boats, and floatplanes to solve that sort of emergency while repairs are made. We don't need you to build a bridge to save us. Especially one that would damage the Mendenhall State Game Refuge. It would be unnecessary, harmful, and potentially illegal to build a crossing that would disrupt the Mendenhall State Game Refuge. This unique wetland supports thousands of migratory birds, spawning salmon, deer, and many other species. Any crossing built above or below the wetlands could create catastrophic damage to this irreplaceable wildlife corridor. Please do not build a second crossing. And if you choose to, against the wishes of many living in the North Douglas community, protect the ever-shrinking wildlife critical habitat currently protected in the Mendenhall Wetlands Wildlife Refuge by building it outside the refuge. Sincerely,				

2/3/2023	Hannah Schlosstein	Hello Morgan, Can you please remove me from this email list? Thanks! On Fri, Feb 3, 2023 at 13:48 Morgan McCammon <mmccammon@dowl.com> wrote: Good afternoon Technical and Stakeholder Advisory Committee Members, Thank you for your continued participation on the Advisory Committees. We would like to invite you to a combined meeting on Tuesday, February 28, 2023, 4:00-6:00 p.m. via Zoom. An agenda will be sent prior to the meeting. If you are unable to attend and have not designated an alternate, please send contact information for an alternate representative. Best regards, Morgan McCammon Public Involvement Specialist DOWL Morgan McCammon is inviting you to a scheduled Zoom meeting.	Hi Hannah, I'm sorry you received this. I did not send this meeting invitation to you. Is there someone on the list who may have set it to be forwarded to you for some reason? Morgan McCammon	2/3/2023	M. McCammon	

2/3/2023	Karen Crandall	Thank you for taking into consideration my attached observations and concerns about the need for and siting of a potential second Gastineau Channel crossing. Observations/comments about a 2nd Channel Crossing especially about the option of building a crossing north of the airport or crossing from the Mendenhall Peninsula to Douglas Island We have lived on Fritz Cove and North Douglas for over 39 years. We moved here because we enjoyed living out-of-town. We have driven down North Douglas Highway and across the bridge nearly every day for 40 years and have only been delayed at the bridge on several occasions. We enjoy the relative quiet, the beauty and wildlife viewing living here offers us. Every day I am privileged to look out my window and see hundreds of ducks, geese, gulls, eagles and to enjoy watching the antics of seals, otters, sealions. I am mesmerized by the humpback whales and orcas that frequent the cove. When we first lived here ours were some of the very view crab pots in the cove, you would see some small skiffs, a few kayakers and an occasional fishing boat entering or exiting the channel. Fritz Cove has definitely been discovered in more recent years. It seems that everyone enjoys the cove for the same reasons I do. One day last summer I counted 175 crab pots in the cove. This year on the last day of October, I saw a kayaker paddling in front of my house with a crab pot on the bow of this kayak. It always amazes me how many people fish for king salmon (released in Fish Creek by DIPAC) in June when fishing for kings is closed in most other areas. You see people fishing from kayaks, canoes, row boats, rubber rafts, small skiffs, larger boats and on some days from too many charter boats. From my porch I have counted	Good afternoon Ms. Crandall, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

		more than 50 vessels fishing at the same time. This summer I was working on my gardens and heard the familiar sound of the blow of a Humpback whale. I went down to my deck to watch it and was stunned to see how many boats were there fishing, pulling crab pots and watching the antics of the whale. Everyone including the many tourists on several whale watching boats were enjoying the show. I was relieved to see that the whale was not particularly disturbed by the crowd. I was slightly concerned for the many kayakers from a tour group who did not seem phased by a feeding, surfacing and "spy-hopping" whale so close to them. In the fall duck hunters use the area. The Entrance Point - Fish Creek area offers walkers, dog walkers and families a close by, relatively pristine area where they can recreate, enjoy its beauty, productivity and wildlife viewing. This area has often been recommended to be included in the Juneau's park system. The nearly unobstructed view of the glacier from a boat in Fritz Cove or from the boat launch seems to be a favorite image used in tour operator brochures and is similarly enjoyed by residents. Camera shots from the area are beautiful. Even in the winter on a clear night you can drive to the boat launch, walk the beach and have one of Juneau's best views of the Northern Lights. With the exception of the lights from a cell phone tower, the view is very free of light pollution. A bridge would take this away too. Fritz Cove is a beautiful productive cove inside the boundaries of the Mendenhall State Game Refuge that would be ruined with the presence of a bridge. Wildlife would be disturbed and probably displaced. Fisherman might lose their very close and relatively protected cove to fish for salmon (including chinooks) and to set pots for Dungeness crab. Kayakers, rowers, paddle boarders would				

		lose a year-round protected place to enjoy their sport. Most of us moved to Juneau and have stayed here because we love the area, the environment and the wildlife viewing opportunities that an area like Fritz Cove gives us. I hope this is not destroyed. 2/3/2023 If a new crossing is really needed than I hope that it will be placed in an area that is already disturbed and would resolve some of the perceived issues that currently exist. I would prefer seeing any funds available be used to maintain and improve existing infrastructure. Building a bridge beyond the airport would not resolve congestion issue on the current bridge but only further congest traffic on North Douglas Highway. The location of any second crossing would require building a bench road or making significant improvements to the existing highway. Emergency transport to the hospital for most North Douglas residents would not improve by building a bridge north of the airport. Building a second crossing at Salmon Creek, Twin Lakes or Vanderbilt Hill intersection would probably best relieve some of the perceived problems with the single existing crossing. I attended the Zoom meeting on May 11th and to the pop-up Listening Session at Eaglecrest on September 17th. I appreciated the opportunity to talk to your staff at Eaglecrest and to express some of my observations and concerns. Thank you for taking my thoughts and observations into consideration into your planning.				

2/3/2023	Laurie Craig	Please see my attached comments. Thank you. See attachment dated 2/3/2023	Good afternoon Ms. Craig, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	
2/3/2023	Mark Rorick	See 2023_02_03_M_Rorick_Article.pdf	Good afternoon Mr. Rorick, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared this article with the project team and added you to the project contact list. Please send along any comments you would like the project team to consider. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	

2/3/2023	Mary Irvine	Dear Marie Heidemann, DOT&PF Project Manager, Irene Gallion, CBJ Liaison, and Nin Keller, DOWL PEL Assistant Project Manager and the North Crossing Planning and Environmental Linkages Study Team, Thank you for the opportunity to comment on the proposed transportation corridor to connect Juneau with Douglas Island. My comments are as follows: Congestion could be minimized with the building of a second bridge close to the existing bridge. Once the second bridge is built, one bridge could be two lanes of traffic in one direction, and the other bridge could be two lanes of traffic in the other direction. This would meet the intended purpose of minimizing congestion on the existing Douglas Island Bridge, and alleviate concerns about safety and emergency response in the event of a bridge closure. This would avoid impacts to the Mendenhall Refuge and not add unreasonable visual or safety impacts. One alternative that is missing among the range of alternatives is simply improving the current bridge, by widening it, and improving the safety of it. This should be included in the proposal. The project should avoid increasing traffic on North Douglas Highway which is a residential street. Daily, children in small groups or alone, wait in the rain for their school bus. Deer and dogs dart out or cross the road. Mail is delivered and traffic swings wide to avoid hitting people backing out of their driveways or pulling up to their mailbox to check for the newspaper. During the summer, traffic can get intense, with tour buses heading to Eaglecrest,	Good afternoon Ms. Irvine, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Additional Good morning, Mary. The next public open house is scheduled for summer 2023, we will share the date and location when set. Thank you.	2/3/2023	M. McCammon	

		fishermen hauling boats to the boat ramp, or buses taking visitors to helicopter and other venues. To plan for 7 alternatives without realistically addressing this issue of increased traffic is irresponsible. Tools exist to allow estimations to be made, studies can be done. The Study briefly mentions the purposes of development of residential, commercial, industrial, and port development at west Douglas Island as an idea raised by previous studies. The deep water port on the west side of Douglas Island appears to be the overriding purpose for several of the alternative crossing locations – the two on either side of the airport, as well as the one from the Mendenhall Peninsula. As such, these alternatives deviate from the main purpose of this current crossing study, which is to move traffic from the Valley to Douglas and from Douglas to the Valley. To muddy this current study with the three crossing alternatives (2 on either side of the airport and the Mendenhall Peninsula crossing) is outside of the current project's scope and confuses the project. These three options should be deleted from the current project alternatives so that the public and project managers can focus on more realistic and purpose-related goals. If the deepwater port on the west side of Douglas is really the focus of this study, please state that, and place it on a map for the public to consider. The Study does not address added traffic to the North Douglas Highway in a realistic manner. This is extremely important, because an added corridor will greatly impact residents of Douglas. The Study should explore each of the alternatives both without and with the construction of a Bench Road.			

		A Bench Road might assist in alleviating the traffic congestion that will be levied on Douglas residents by any of the alternatives, but it is difficult to assess without even a conceptual narrative to go along with even one of the alternatives. Further, it is unclear why the Bench Road drawn in on the Study maps only attaches to the existing bridge, and it is baffling to try to understand why the Bench Road ends where it does on the maps offered: in a residential area on North Douglas. I am opposed to each alternative north of Twin Lakes: I am opposed to Vanderbilt because of its negative impacts on the Refuge. I am opposed to the Sunny Point alternative because of its negative impacts on the Refuge. I am opposed to the North Airport alternative because of its negative impacts on the Refuge. I am opposed to the Mendenhall Peninsula alternative because of its negative impacts on the Refuge. I am also opposed to the Mendenhall Peninsula alternative because of the many negative impacts it would have on the residential neighborhoods of the far north of Douglas Island, including impacts to the viewshed, impacts on easy of mobility (congestion) and increase in traffic accidents, lights, noise, and diminished natural habitat. I am opposed to any alternative which is located inside or above the Mendenhall Wetlands State Game Refuge. The wildlife refuge is one of four crucial migratory bird wetlands in Southeast Alaska, and each alternative located north of Twin Lakes will unreasonably negatively impact the wildlife, fish, and people who use this refuge. Because reasonable corridor options are located				

		closer to downtown, the superior public need for this refuge as it exists currently must be respected. No consideration is given to the current cultural uses made of the small islands within the Mendenhall Refuge. Instead, engineers at the open house freely admitted that they would plan to "land" or attach parts of the bridge to available existing islands. Cultural use is being made of these islands, upon which spruce trees between 60 and 75 years of age have established themselves. Project staff at the open house dismissed questions regarding consideration of cultural investigations, stating "we've done and are doing studies, you just don't get to know about them." This condescending attitude should be corrected by the next open house. The Mendenhall Peninsula alternative would negatively affect an important anadromous fish stream at Fish Creek, and also important pooling areas for salmon before the fish migrate upstream. The cove between Entrance Point to north of the North Douglas Boat Ramp is also an important area for crab and herring and would be negatively affected by the Mendenhall Peninsula crossing option. The Mendenhall Peninsula alternative would negatively affect the important viewshed of the north end of Douglas Island. This viewshed is specifically noted as an important viewshed in the CBJ Plan of 2013. The Mendenhall Peninsula alternative as presented on the map has an egregiously large swath of				

		impact area which does not allow the affected public to discern what is intended by the proposal. Where would this corridor "land" on Douglas? The map covers several miles of north Douglas coast in a purple color, whereas each other alternative is specific where on Douglas the bridge and road would be. This must be defined before the public can be expected to comment on it. The Mendenhall Peninsula alternative seems to connect to Douglas Island within the Fish Creek Park. This must be a mistake on the part of the project planners. This "resilient little park" as the municipal interpretive signage calls it, is one of the hidden jewels of the municipality. It is reachable by municipal bus, is one of the wildest parks closest in to downtown Juneau, and contains valuable fish and wildlife habitat as well as recreational value because of its largely wild characteristics. It has been envisioned, crafted, set aside, monitored, planned for, protected, and used by a growing number of people: thousands of people annually for many years. Its estuary and natural habitat is important not only for fish, but provides one of the singlemost important feeding and nesting areas for bats in all of Southeast, a massive population of boreal toads, and several species of owls. Year-round this Park is used by school groups, tourism groups (commercial kayak tours, hiking tours, fishing tours), residential neighbors, fishermen, hockey players, berry pickers and dog walkers. Nearly all of these users comment favorably on the de minimus lighting in the area which allows the natural character of the Park to remain dark and wild. The Mendenhall Peninsula alternative would be the tallest alternative possibly 100 feet off of Fritz				

		Cove, and would negatively impact the viewshed irreparably. The Mendenhall Peninsula alternative would negatively impact the quiet character of the North Douglas highway walking experience, between the North Douglas Boat Ramp and the Outer Point parking lot. Hundreds of people use this stretch of the highway year-round for walking exercise, bicycling, running, and even commercial segway tours. The increased traffic would negatively impact this area, and create congestion that would negatively impact the safety of the public who use this stretch of highway now. Finally, the name of this study is slightly offensive. When did this project change from the "Second Crossing" to the "North Crossing"? This presupposes a preferred alternative, and that is pernicious. Please consider changing it back to the Second Crossing in the near future. Thank you for the opportunity to comment. Please do not publish my phone number in public documents. Thank you, Additional comment Thank you Morgan! Has a date for the next open house been set yet?				

2/3/2023	Tom Rutecki	I recommend the Eagle, Salmon Creek, North Airport, and Mendenhall Peninsula options move forward to Level 2 scoping. While I think that Salmon Creek is the best option, considering these four alternatives in detail would allow quantitative comparisons of the environmentally acceptable options in terms of emergency access, transportation facilitation, neighborhood impacts, and costs.	Good afternoon Mr. Rutecki, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/3/2023	M. McCammon	
2/3/2023	Gary Mendivil	From an air quality perspective, alternatives 1 and 2 fall within the Mendenhall Valley PM10 Maintenance area (see the attached PM10 boundary kmz file). Hence, if you decide to go with any of these two alternatives, you would need to meet the transportation conformity requirements per the Clean Air Act. However, to make an informed decision on the need for conformity analysis when the preferred alternative is chosen, the department would need set up an interagency conformity meeting. Only the members of the interagency committee, including the EPA, DEC, DOT&PF, FHWA, and FTA, can provide guidance on the conformity determination.	Good afternoon Mr. Mendivil, Thank you for providing comments. We appreciate your involvement in the PEL process. Morgan McCammon	2/3/2023	M. McCammon	

2/3/2023	Matthew H. Robus	Comments re North Crossing PEL Study First of all, I should state that I do not oppose the idea of a “second crossing,” although I am not sure that one is necessary, compared to other needs in Juneau. Arguably, the planning and design of a “Douglas Island bench road,” which would prepare the corridor along the east and north shores of the island for increased traffic and protect the local neighborhoods along North Douglas Highway from high speed through traffic, should precede planning for a crossing. My comments about the PEL study are about both the process to date as well as the choices to be made: Process To give an idea of my involvement, I have participated in a North Crossing PEL listening session, public stakeholder meetings, an open house, and a special meeting between staff and the Mendenhall Wetland Study Group. At my first exposure I was dismayed that the Mendenhall Wetlands State Game Refuge (MWSGR) was not depicted on the maps defining the study area and have been disappointed ever since that those boundaries have not been added. For a process with "Environmental Linkages" embedded in its title this has seemed curious to say the least. By definition the MWSGR contains not only significantly valuable natural resources but also presents extra regulatory hurdles for any development; it was a mistake to encourage the public to nominate crossing routes without showing them a legislatively designated special area that would be affected, and which would in	Good afternoon Mr. Robus, Thank you for providing comments. We appreciate your continued involvement on the Committee and in the PEL process Morgan McCammon	2/3/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		turn affect the authorization of a route. From the beginning I have repeatedly questioned the absence of the refuge boundaries on the PEL map handouts and have been politely told by staff that the MWSGR boundaries existed in one of the layers in the map book available at the meetings. Maybe so, but my point is that most people didn't leaf through the map book when making their route decisions, and if they used a map at all, it was the study area handouts, which were silent on the matter of a wildlife refuge. The airport was depicted (I assume) because it obviously affected route choices; the decision not to depict another legislatively designated special purpose area (the MWSGR) within the study area seems arbitrary, and likely led people to favor routes across the refuge in ignorance of its extent and its management paradigm. Did people drawing routes understand that state regulations require that off-refuge alternatives be preferred? Probably not. If I understand the process correctly, the idea was to collect ideas for crossing routes based entirely on the purpose and need statements, with environmental and other considerations to be used to screen out problematic alternatives. The problem is that the array of route alternatives, gathered without adequate revelation of MWSGR's extent or purpose, will now be screened away from the public eye using environmental and other factors, leading to a reveal sometime later this spring/summer. Given that the MWSGR boundaries were not prominently included in the information which was a basis for forming proposed route alternatives, the planning team has forfeited a certain amount of credibility in the proceedings. Route Choices				

		My route recommendations are based upon 30 years as a professional wildlife biologist, 8 years as ADF&G's Juneau Area Biologist, and 4.5 years as Alaska's chief wildlife manager, as well as 31 years as a Juneau resident. The Mendenhall Wetlands State Game Refuge and the surrounding Mendenhall Wetlands constitute an extraordinarily important area for the production and sustainment of a wide variety of fish, bird, and mammalian species and support a wide array of public recreational uses. The benefits of these habitat resources extend regionally well beyond the refuge boundaries. These values are important enough that the state regulations regarding the MWSGR require that off-refuge transportation corridors be sought in preference to routes transecting the refuge. Accordingly, I oppose all route proposals that would cross the Mendenhall Wetlands State Game Refuge on the surface. The deleterious effects of such a crossing can be seen in other submittals to this request for comments, but include habitat alteration, disturbance, tidal and freshwater inputs, altered human use patterns, viewshed impacts, etc., not to mention the effects of increased traffic along North Douglas Highway. Viable route alternatives in my view include Salmon Creek, Eagle Creek, and Downtown, which all offer alternative access to Douglas Island in the case of the existing bridge being blocked for some reason, and facilitate EMS access. I personally don't believe that affordable housing is a valid reason for a second crossing and suspect that much of the enthusiasm for a crossing is for access to developable land and for convenient access to				

		Eaglecrest. Protection of the integrity of the MWSGR steers my choices for route alternatives to the area from Salmon Creek to the existing bridge. The Mendenhall Peninsula option, if constructed so as to avoid the area around the mouth of the Mendenhall River, an especially important area biologically, could also be a viable option. Thank you for the opportunity to provide comments on this important issue. Matthew H. Robus				

2/3/2023	Sarah Markegard (she/her) Fish and Wildlife Biologist Southern Alaska Fish and Wildlife Field Office Alaska Region | U.S. Fish and Wildlife Service	Hello, Thank you for the opportunity to provide comments on the screening process and preliminary alternatives for the JDNC PEL Study, and for the coordination call earlier this afternoon. I have attached questions and recommendations on behalf of the US Fish and Wildlife Service; please let me know if clarification is needed. I am happy to assist throughout remainder of the screening process. Sarah See letter dated 2/3/2023	Good afternoon Sarah, Thank you for providing comments. We appreciate your continued involvement on the Committee and in the PEL process. Morgan McCammon	2/3/2023	M. McCammon	Advisory Committee Comment - Meeting 2

2/3/2023	Randal P. Vigil Project Manager Regulatory Division	Ms. Marie Heidemann, The U. S. Army Corps of Engineers (USACE) has reviewed the proposed Juneau Douglas North Crossing Planning and Environmental Linkages (PEL) study. This email provides the USACE comments on the PEL study. Project Purpose: The definition of overall project purpose is used in the determination of practicable alternatives since the Environmental Protection Agency's 404(b)(1) Guidelines (Guidelines) define practicable to mean: "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes (40 CFR 230.10(a)(2))." While the definition of overall project purpose is solely the USACE's responsibility, it must take into consideration the applicant's stated purpose for the project (July 2009, Army Corps of Engineers Standard Operating Procedures for the Regulatory Program.). If a permit applicant has limited their purpose in such a way that the alternatives analysis would be constrained, then the USACE will re-define the overall project purpose in order to allow for consideration of an appropriate range of alternatives. The PEL and any future NEAP document purpose statement should allow for the generation of a range of alternatives for a meaningful analysis under the Guidelines. Alternative Analysis: Clean Water Act (CWA), Section 404 permits are only issued for projects that clearly demonstrate compliance with the Guidelines. The Guidelines state that no discharge of dredged or fill material can be permitted if there	Good afternoon Mr. Vigil, Thank you for the comments. Thank you for providing comments. We appreciate your continued involvement on the Committee and in the PEL process. Morgan McCammon	2/3/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In those cases where non-water dependent work is proposed in a "special aquatic site" (such as wetlands, eelgrass beds, or mudflats), practicable alternatives are presumed to exist unless clearly demonstrated otherwise by the applicant. Also, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into to a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise. An alternative is considered practicable if it is available and capable of being accomplished after taking into consideration costs, existing technology, and logistics in light of the overall project purpose. The least environmentally damaging practicable alternative may include construction in upland, reducing the size of the proposal to the minimum discharge necessary for the project, or the inclusion of logistic and operational controls. The PEL and any future NEAP document should clearly outline the site selection/screening criteria for the practicability for the alternatives considered. Examples may include: criteria related to availability (i.e. available for acquisition, zoned appropriately or potential for re-zoning); cost (i.e. reasonable acquisition or development costs); technology (i.e. whether existing technology is available to address any site constraints like steep topography); and logistics (i.e. location of parcel				

		within certain distance of particular facilities/city boundaries/highway and/or utility infrastructure; adequacy of parcel size; availability of utilities; availability for access, etc.). Consider establishing criteria that are minimum/maximum or pass/fail (e.g., at least 15 acre size (minimum size); ability to connect to utilities (sewer, electricity) (pass/fail). Evaluation for compliance with the Section 404(b)(1) Guidelines: Under the 404(b)(1) Guidelines, no discharge can be permitted if there is a practicable alternative with less adverse impact on the aquatic environment, unless the alternative has other significant adverse effects on the natural environment (40 CFR § 230.1 0(a)). In addition, no discharge can be permitted under the Guidelines if it would, individually or cumulatively, cause or contribute to significant degradation of waters of the United States (U.S.), or violate other applicable laws, such as State water quality standards, toxic effluent standards, or the Endangered Species Act. The Guidelines also state that no discharge in wetlands shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. In determining whether the proposal complies with Guidelines, the USACE must assess potential impacts on the aquatic ecosystem, including substrate, suspended particulates/turbidity, water, current patterns and water circulation, and normal water fluctuations. Information regarding these factors should be included to evaluate these impacts.				

		Potential impacts to wetlands should be included in the analysis. In order to assess impacts to wetlands, a range of design for a proposed second crossing near Juneau to connect with Douglas Island, any alternative that requires the "Bench Road", transportation improvements for non-motorized users and transportation related energy consumption reduction, and transportation improvements for infrastructure resilience and reduction in traffic pressure on Douglas Island Bridge and its intersections. Potential impacts on the human use characteristics (subpart F 40 CFR 230.50) should be addressed including recreational and commercial fisheries, water-related recreation, aesthetics, including wildlife refuges. In order to evaluate possible contaminates in dredge and fill materials, a pre-testing evaluation should be conducted to determine if there are sources of contamination and harmful quantities to the aquatic environment by man-induced discharge activities (subpart G, 40 CFR 230.60). An example specific to this project are naturally occurring deposits of acid generating rock and arsenic within the proposed project area, however the other potential sources of contaminates should be examined as well. The PEL and any future NEPA document should include analysis of effects to populations of fish and wildlife, alteration of substrate, water levels, water flow, water quality, migration corridors, food supply, a change in breeding and nesting areas, and animal travel corridors associated with aquatic ecosystems.				

		Under the USACE's substantive evaluation criteria for all CWA, Section 404 permits, the Guidelines, mitigation is a sequential process of avoidance, minimization, and compensation. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. Only upon clear demonstration of compliance with the first two steps in the mitigation sequence does the Corps take the third step, which would be addressed during the review of a DA permit application for the proposed undertaking, should one be submitted. Avoidance measures are the planning strategies that entirely eliminate the discharge of fill material into the aquatic ecosystem to achieve the project purpose. A key requirement of compliance with the avoidance sequence of the Guidelines is to show whether or not an aquatic resource can be completely avoided. Minimization entails measures to reduce or diminish the impacts to aquatic resources. There are two overarching themes that affect how the mitigation sequencing is conducted. One is that although the burden of proof for satisfying these steps rests with the permit applicant, the USACE must rely upon its own analysis in making a finding of compliance or non-compliance with the Guidelines. The applicant must provide information that is sufficient to determine compliance, so the USACE can make a timely permit decision. In order to determine if project component locations can be shifted to avoid or minimize impacts, a functional or aquatic site assessment is required.				

		Because this proposal would appear to result in the loss of waters of the U.S., including wetlands, future documentation should include a mitigation section that contains a discussion describing how impacts to waters of the U.S. are to be avoided and minimized. This information must be specific to the proposed work and sufficient for the Corps' Guidelines analysis. Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest (33 CFR 320.4). To the extent appropriate , the public interest review would include consideration of policies as described in 33 CFR 320.4(b) through (r), which include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, needs and welfare of the people. Evaluation of the probable impact that the proposed activity may have on the public interest requires a careful weighing of all the factors that are relevant to the project. The benefits that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome				

		of this general balancing process of these factors. The USACE appreciates the opportunity to comment. Please contact Randal Vigil via email at Randal.P.Vigil@usace.army.mil, by mail at the address above, or by phone at (907) 201-5022, if you have questions. Sincerely, Randal P. Vigil Project Manager Regulatory Division				

2/3/2023	Krista Garrett she/her/hers Conservation Director Southeast Alaska Land Trust	Hello PEL Study Team and Technical Advisory Committee, Please find attached the Southeast Alaska Land Trust's comments regarding the PEL Study's preliminary alternatives. Thank you, -- Krista Garrett See letter dated 2/3/2023	Good afternoon Krista, Thank you for the additional comments. Morgan McCammon	2/3/2023	M. McCammon	Advisory Committee Comment - Meeting 2
2/3/2023	Jesse Lindgren ADF&G Habitat Biologist	Hi Everyone, ADF&G biologists have reviewed the preliminary alternatives and screening for the Juneau Douglas second crossing PEL study and I have attached our comments. Please reach out if you have any questions. Thank you for the opportunity to comment, Jesse Lindgren ADF&G Habitat Biologist See letter dated 2/3/2023	These are the combined ADF&G comments. Nina Keller	2/3/2023	N. Keller	Advisory Committee Comment - Meeting 2

2/5/2023	Jack Dodson	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Mr. Dodson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/6/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/7/2023	Megan G. Hillgartner Southeast Regional Manager Alaska Department of Natural Resources Division of Mining, Land and Water	DNR's comment (please let me know if you have any questions): Thank you for the opportunity to comment on the Department of Transportation and Public Facilities (DOTPF)/City and Borough of Juneau (CBJ) Juneau-Douglas North Crossing Planning and Environmental Linkages (PEL) Study. The PEL study area encompasses lands managed by the Alaska Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), including tide and submerged lands underlying Gastineau Channel and Fritz Cove and land within the Mendenhall Wetlands State Game Refuge (MWSGR). Per AS 16.20.034 and the 1993 Juneau State Land Plan, DNR maintains management authority of the surface and subsurface estate within the MWSGR and is directed to ensure that actions taken within the refuge are in conformity with the 1990 Alaska Department of Fish and Game (ADFG) MWSGR Management Plan. As required by AS 16.20.034, the ADFG MWSGR Management Plan contains provisions by which CBJ may acquire land from DNR for the purpose of establishing public transportation corridors[1]. At this time, DNR does not have any comment regarding the PEL Study alternatives, screening process, or alternatives criteria. DNR notes that any disposal of resources on state land within the MWSGR or within DMLW-managed tidelands and submerged lands requires authorization from DNR. [1]AS 16.20.034(j): Notwithstanding the provisions of (d) — (i) of this section, if the City and Borough of Juneau demonstrates to the Departments of Natural Resources and Fish and Game, jointly, that	Good morning Megan, Thank you for sharing these comments. Morgan McCammon	2/7/2023	M. McCammon	Advisory Committee Comment - Meeting 2

		there is a superior public need for or use of the land to its use as a state game refuge, after public hearing and a finding by the departments supporting the determination that such a need or use exists or is required, the use shall be permitted. A final administrative order, ruling, or determination by the departments adverse to the petition of the City and Borough of Juneau is subject to judicial review under AS 44.62.560 — 44.62.570. Thank you! Megan G. Hillgartner Southeast Regional Manager Alaska Department of Natural Resources Division of Mining, Land and Water Southeast Regional Land Office				

2/13/2023	Rachel Youens	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. Here are the reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational, and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration	Good morning Ms. Youens, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/14/2023	M. McCammon	

		traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				
2/15/2023	Leslie Daugherty	Hello Marie, Here are some thoughts we've had related to the 2nd crossing. Please let us know what else we can do to help. Thank you, Leslie See comment letter dated 2/15/2023	DOT&PF to respond			Advisory Committee Comment - Meeting 2

2/21/2023	Dave Hanna (Access Alaska)	I would like to echo that concern.	Good morning Advisory Committee Members, Thank you to those who shared concerns about meeting virtually. Our decision to alternate hosting virtual and in-person meetings is in effort to get maximum participation, demonstrating the importance of the study and accommodating our advisory committee members. Many agency representatives on the Technical Advisory Committee are based in Anchorage and unable to travel to Juneau for meetings. These agencies provide a perspective on regulatory issues, and their input is valuable, supplementing the input from neighborhoods and residents of Douglas and Juneau. Meeting materials will be sent out prior to the meeting. We have decided to use Zoom for this meeting and to not use break out rooms to avoid the technical difficulties of the previous virtual meeting. Best regards, Morgan McCammon	2/22/2023	M. McCammon	Advisory Committee Comment

2/21/2023	Julie Bednarski (NDNA)	I am throughly disappointed that you are choosing an online meeting as your platform. To some of us this project is very important and moving it to an online platform diminishes the importance of the project. Online platforms don't work as well as in person meetings. The online one you had last year with breakout groups was hard to follow and we got dropped.	Good morning Advisory Committee Members, Thank you to those who shared concerns about meeting virtually. Our decision to alternate hosting virtual and in-person meetings is in effort to get maximum participation, demonstrating the importance of the study and accommodating our advisory committee members. Many agency representatives on the Technical Advisory Committee are based in Anchorage and unable to travel to Juneau for meetings. These agencies provide a perspective on regulatory issues, and their input is valuable, supplementing the input from neighborhoods and residents of Douglas and Juneau. Meeting materials will be sent out prior to the meeting. We have decided to use Zoom for this meeting and to not use break out rooms to avoid the technical difficulties of the previous virtual meeting. Best regards, Morgan McCammon	2/22/2023	M. McCammon	Advisory Committee Comment

2/21/2023	Teri Tibbett (BBNA & Douglas Advisory Board)	Hi Morgan…Thanks for the email and information! I also echo the sentiments expressed about the online/Zoom meeting. Is it too late to arrange an in-person meeting, like the one we had at Centennial Hall last summer? While Centennial is under repair, the JACC and Elizabeth Peratrovich Hall are alternatives. The libraries often have large meeting rooms too. St. Ann's Parish Hall is often available and would be large enough for 50-75 people. While it might be cutting it close to plan for an in-person on March 6, I'm imagining many would welcome a postponement to be able to meet in person. Thanks for considering these alternatives. Teri	Good morning Advisory Committee Members, Thank you to those who shared concerns about meeting virtually. Our decision to alternate hosting virtual and in-person meetings is in effort to get maximum participation, demonstrating the importance of the study and accommodating our advisory committee members. Many agency representatives on the Technical Advisory Committee are based in Anchorage and unable to travel to Juneau for meetings. These agencies provide a perspective on regulatory issues, and their input is valuable, supplementing the input from neighborhoods and residents of Douglas and Juneau. Meeting materials will be sent out prior to the meeting. We have decided to use Zoom for this meeting and to not use break out rooms to avoid the technical difficulties of the previous virtual meeting. Best regards, Morgan McCammon	2/22/2023	M. McCammon	Advisory Committee Comment

2/21/2023	Thomas C. Williams	Dear US Department of Transportation: I have attached my letter in support of a RAISE grant being approved for the Juneau-Douglas North Crossing. Please contact me with any questions. Thank you for your consideration. Sincerely, Tom Williams February 21, 2023 The Honorable Pete Buttigieg Secretary United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 Dear Secretary Buttigieg, I urge you to approve federal discretionary funding under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program for the JuneauDouglas North Crossing (JDNC) as requested by the City and Borough of Juneau, Alaska (CBJ) and the Alaska Department of Transportation (ADOT). The requested 2023 RAISE award is a critical part of this project, providing funds to support the final design of the project and produce bid ready construction documents. The JDNC will create a second highway connection between Juneau and Douglas Island. Currently there is only a single bridge providing access to Douglas Island. The historical town of Douglas is a very important community within the CBJ. Douglas Island is an area abundant with desirable residential communities and outdoor attractions such as hiking trails and ski areas. However, access to Douglas Island and its many residents is limited with only one highway connection to the mainland. The JDNC will have a much greater positive	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		effective on the short-term and long-term health and quality of life for Juneau and Douglas residents than any other currently attainable development project. In addition to many other benefits, the JDNC will: 1. ensure adequate emergency services, such as fire, police and medical services, remain available to Douglas residents in the event the existing bridge is closed; 2. relieve the significant congestion associated with the existing bridge; 3. allow ADOT to close the existing bridge for significant repairs and maintenance without impeding the flow of traffic between Juneau and Douglas; 4. increase housing development opportunities on Douglas Island; 5. increase recreational opportunities on Douglas Island; 6. increase employment opportunities throughout the CBJ; 7. improve tourism opportunities; 8. improve the CBJ's ability to attract new businesses and US government agencies to the Borough; and 9. potentially relieve traffic congestion in downtown Juneau. Please help ensure the CBJ's economic future, stability, and sustainability by approving the requested RAISE grant for the Juneau-Douglas North Crossing. Thank you very much.				

2/21/2023	Thomas C. Williams	The Honorable Pete Buttigeg Secretary United States Department of Transportation 1200 New Jersey Anenue, SE Washington, DC 20590 Dear Secretary Buttigeg, I urge you to approve federal discretionary funding under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant program for the Juneau Douglas North Crossing (JDNC) as requested by the City and Borough of Juneau, Alaska (CBJ) and the Alaska Department of Transportation (ADOT). The requested 2023 RAISE award is a critical part of the project, providing funds to support the final design of the project and produce bid ready construction documents. The JDNC will create a second highway connection between Juneau and Douglas Island. Currently there is only a sinlge bridge providing access to Douglas Island. The historical town of Douglas is a very important community within CBJ. Douglas Island is an area abundant with desirable residential communities and outdoor attractions such as hiking trails and ski areas. However, access to Douglas Island and its many residents is limited with only one highway connection to the mainland. The JDNC will have a much greater positive effect on the short-term and long-term health and quality of life for Juneau and Douglas residents than any other currently attainable development project. In addtion to many other benefits, the JDNC will: 1. Ensure adequate emergency services, such as fire, police and medical services, remain available	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		to Douglas residents in the event the existing bridge is closed; 2. relieve the significant congestion associated with the existing bridge; 3. allow ADOT to close the existing bridge for significant repairs and maintenance without impeding the flow of traffic between Juneau and Douglas; 4. increase housing development opportunities on Douglas Island; 5. increase employment opportunities throughout CBJ; 6. improve tourism opportunities; 7. increase recreational opportunities on Douglas Island; 8. improve CBJ's ability to attract new businesses and US government agencies to the Borough; and 9. potentially relieve traffic congestion in downtown Juneau. Please help ensure the CBJ's economic future, stability, and sustainability by approving the requested RAISE grant for the Juneau-Douglas North Crossing. Thank you very much. Sincerely, Thomas C. Williams				

2/22/2023	Ron Somerville	Morgan, Matt Robus and I will be there. I agree with the comment that on-line discussions are not as effective a method of communicating, especially when deliberating issues as critical as this one. Ron Somerville Additional comment Morgan, thanks for the feedback. We understand but wanted to express our opinion that as this process proceeds, in person meetings are better for communicating on complex issues. Ron	Good morning Ron and Matt, I wanted to make sure you both had seen the reasoning behind holding this meeting virtually. Thank you to those who shared concerns about meeting virtually. Our decision to alternate hosting virtual and in-person meetings is in effort to get maximum participation, demonstrating the importance of the study and accommodating our advisory committee members. Many agency representatives on the Technical Advisory Committee are based in Anchorage and unable to travel to Juneau for meetings. These agencies provide a perspective on regulatory issues, and their input is valuable, supplementing the input from neighborhoods and residents of Douglas and Juneau. Meeting materials will be sent out prior to the meeting. We have decided to use Zoom for this meeting and to not use break out rooms to avoid the technical difficulties of the previous virtual meeting. Best regards, Morgan McCammon	2/24/2023	M. McCammon	Advisory Committee Comment

2/22/2023	Winston Smith (Juneau Audubon Society)	I agree that in-person interactions are more effective and request that you reconsider the venue. Thank you. Winston Smith Juneau Audubon Society Additional comment I agree it is important to have the Technical Advisory Committee participating or others who cannot attend an in-person meeting, but this does not preclude hosting a hybrid meeting. Winston	Good morning Advisory Committee Members, Thank you to those who shared concerns about meeting virtually. Our decision to alternate hosting virtual and in-person meetings is in effort to get maximum participation, demonstrating the importance of the study and accommodating our advisory committee members. Many agency representatives on the Technical Advisory Committee are based in Anchorage and unable to travel to Juneau for meetings. These agencies provide a perspective on regulatory issues, and their input is valuable, supplementing the input from neighborhoods and residents of Douglas and Juneau. Meeting materials will be sent out prior to the meeting. We have decided to use Zoom for this meeting and to not use break out rooms to avoid the technical difficulties of the previous virtual meeting. Best regards, Morgan McCammon	2/22/2023	M. McCammon	Advisory Committee Comment
2/24/2023	Bruce Baker	ATTENTION: Members of the CBJ Assembly Public Works & Facilities Committee - Attached are my 2-page comments regarding the Juneau North Second Crossing. I will be unable to attend your pulic meeting on this subject because I will be out of state. Thank you for the opportunity to submit the attached written comments in lieu of my testifying in person. /s/ Bruce Baker	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

2/24/2023	Bruce Baker	I oppose the proposal for a “Mendenhall Peninsula” bridge which would cross Fritz Cove, the area which includes the North Douglas boat ramp, the CBJ‘s Fish Creek Natural Area Park, and Bayview Subdivision. ● A “Mendenhall Peninsula” option would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and an essentially new road down the Mendenhall Peninsula. ● It would result in the longest possible travel distances for medical and other first responders, plus most residents’ travel to work, shopping, and other activities, in the event that the existing Juneau-Douglas bridge becomes even temporarily unusable for any reason. ● It would have a significant adverse impact on Fritz Cove whales, sea lions, seals, Dungeness crab, anadromous fish utilizing the Fish Creek estuary (coho, pink, chum, and hatchery king salmon; cutthroat trout; and Dolly Varden char), and numerous other fish and invertebrate species which make up the food chain. ● On the east side of both Fritz Cove and your identified “Mendenhall Peninsula” crossing corridor is Bayview Subdivision which consists of more than 60 year-round residential homes, the destruction or disruption of which would be an enormous community impact, the economic cost of which would be a huge financial burden for the CBJ, considering the cost of settling numerous likely lawsuits and making very large buyout payments to displaced homeowners. ● Hopes for development of the west side of Douglas Island are wishful thinking because Juneau’s population is not increasing and many government offices have been moving to the Anchorage area. Moreover, no one has come forth	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		with a favorable benefit-cost analysis that takes into account all of the social, economic, and environmental costs of providing highway access directly from the Mendenhall Peninsula across Fritz Cove to North Douglas to facilitate west side development. In Summary: Of all the identified second crossing alternatives, your “Mendenhall Peninsula” option is the most far out, both literally and figuratively. Your time and energy would be better spent selecting a more practical crossing alternative southeast of the Juneau Airport. Sincerely, /s/ Bruce Baker				

2/25/2023	Linda Baker	Hello, One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle school. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Salmon Creek provides a better alternative plus it would cut many miles off the trip to Eaglecrest and North Douglas and would be one of the least damaging to the environment. Sincerely, Linda Baker	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
2/28/2023	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Hi Morgan and all, As I will be unable to make the March 6 Technical Advisory Committee meeting, Molly Zaleski will be attending for NMFS Habitat. To help Molly and others prepare, could you share an agenda for the meeting as well as the public comments received by the February 3 deadline? Thank you so much, Linda Linda Shaw	Good afternoon Advisory Committee Members, Please see the attached agenda and Draft Level 1 Screening Memo. We plan to present on the materials in this memo at Monday's meeting. We do not expect that you will have completely read through and digested the content prior to the meeting. We are sharing these materials early so you will have an opportunity to provide input before this memo is finalized. Additionally, we are sending out the comments received during the comment period. We are not soliciting comment on these, rather we are responding to the request for Advisory Committee members to have an opportunity to see them. We look forward to talking with you on Monday. Morgan McCammon	3/3/2023	M. McCammon	Advisory Committee Comment

2/28/2023	Carl J. Uchytil, P.E. Port Director City & Borough of Juneau	1. The Docks & Harbor Board is supportive of the Juneau North Douglas Cross Project as it provides greater public access to Docks & Harbors facilities. The Board is agnostic to a preferred location and defers to the US Coast Guard regarding navigation impedances resulting from a particular bridge design.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
2/28/2023	Friends of Fritz Cove	Dear Ms. Koester, CBJ Assembly Members, and CBJ Public Works & Facilities Committee Members: The Friends of Fritz Cove appreciate the opportunity to submit written comments in lieu of testifying in person at the Public Works and & Facilities meeting this Thursday, March 2, as it takes public comment on the Second Crossing. The Friends of Fritz Cove submits our petition with 98 signatures to date as our official position regarding the Second Crossing. We are in opposition to a bridge crossing from the Mendenhall Peninsula to the vicinity of the North Douglas boat launch. Please add this to the public record for the project, and let us know with a reply here that you have received this email. Thank you, Friends of Fritz Cove	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

2/28/2023	Andy Hughes	Evaluate construction of a causeway across the Gastineau Channel Wetlands southeast of the airport runway with a hydraulically operated bridge located at an elevation sufficient to pass most small vessels forecast to be able to navigate the channel over a reasonable period into the future as restricted by hydrostatic rebound. The bridge could be opened by appointment to pass the occasional vessel with clearance requirements exceeding the bridge clearance limits at high tide. Past studies have demonstrated that it is not economically feasible to periodically dredge the channel to maintain a specific depth. As years go by the need to open the bridge should become moot as the land continues to rise. Conduct a survey of the number of small vessels that transit the channel by size, type, and height. My guess is the clearance requirements below the approach to the airport runway is 18 feet below the airport runway approach surface. I do not believe longer runways will be needed as aviation economics will dictate that Alaska air carriers serving Southeast Alaska and Alaska at large will be designed to operate into most of the Nation's runways not just Juneau. Also locate the point where the incoming tides meet from the east and west ends of the channel. Locating the causeway as close to this point as possible would minimize the impact to existing tidal currents. Consider the population centers of Juneau, trip purposes, and length of forecasted trips to identify	Good afternoon Mr. Hughes, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	2/28/2023	M. McCammon	

		crossing locations that provide the greatest economic benefits to the user. Identify the most cost effective alternative over the road crossing service life, all cost consider. Andy Hughes				

3/2/2023	Krista Garrett she/her/hers Conservation Director Southeast Alaska Land Trust	Hello Morgan, Just following up on Linda's email – will you be able to share an agenda for Monday's meeting and copies of the public comments received by the study team? Thank you, Krista -- Krista Garrett she/her/hers Conservation Director Southeast Alaska Land Trust	Good afternoon Advisory Committee Members, Please see the attached agenda and Draft Level 1 Screening Memo. We plan to present on the materials in this memo at Monday's meeting. We do not expect that you will have completely read through and digested the content prior to the meeting. We are sharing these materials early so you will have an opportunity to provide input before this memo is finalized. Additionally, we are sending out the comments received during the comment period. We are not soliciting comment on these, rather we are responding to the request for Advisory Committee members to have an opportunity to see them. We look forward to talking with you on Monday.	3/3/2023	M. McCammon	Advisory Committee Comment
3/2/2023	Dave Hanna	I would like to echo this. We at least need the weekend to digest what's been done so far if we are to do the job expected of us. . If that is not possible I suggest we postpone the meeting.	Good afternoon Advisory Committee Members, Please see the attached agenda and Draft Level 1 Screening Memo. We plan to present on the materials in this memo at Monday's meeting. We do not expect that you will have completely read through and digested the content prior to the meeting. We are sharing these materials early so you will have an opportunity to provide input before this memo is finalized. Additionally, we are sending out the comments received during the comment period. We are not soliciting comment on these, rather we are responding to the request for Advisory Committee members to have an opportunity to see them. We look forward to talking with you on Monday.	3/3/2023	M. McCammon	Advisory Committee Comment

3/2/2023	Carl J. Uchytil, P.E. Port Director City & Borough of Juneau	Dear CBJ Assembly & Dowl Engineering, The attached memo is provided on behalf of the CBJ Docks & Harbors Board of Directors. Sincerely, Carl Carl J. Uchytil, P.E. Port Director City & Borough of Juneau Port of Juneau From: Carl Uchytil, Port Director To: City & Borough of Juneau Assembly Via: Docks & Harbors Board Date: February 28th, 2023 Re: Docks & Harbors Board Comments – Juneau North Douglas Crossing Project 1. The Docks & Harbor Board is supportive of the Juneau North Douglas Cross Project as it provides greater public access to Docks & Harbors facilities. The Board is agnostic to a preferred location and defers to the US Coast Guard regarding navigation impedances resulting from a particular bridge design. #	Good afternoon Mr. Uchytil, Thank you for providing comments on behalf of the CBJ Docks & Harbors Board of Directors. We appreciate the input. Would you like to be included in the study email list to receive updates? Best regards, Morgan McCammon	3/2/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/2/2023	Amy Rodman	Is there any way these emails could be sent out more than 4 hours in advance of the scheduled event?	Good afternoon Ms. Rodman, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. Today, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon	3/2/2023	M. McCammon	CBJ Assembly PW&FC Work Session
3/2/2023	Greg Capito	Quit chasing federal dollars and put a stop to this nonsense. Juneau's population has been in steady decline and a second crossing is not needed. Focus resources instead on maintaining our existing highway system.	Good morning Mr. Capito, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/2/2023	Garrett Paul	I didn't receive this notice until 1:20 PM on the day of the work session. Please provide more heads up than 3.5 hours so citizens can properly plan to attend. This short notice doesn't look good on public outreach efforts. Thanks,	Good morning Mr. Paul, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. Today, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/2/2023	Rick Currier	I appreciate being in the loop, but sending this out less than four hours prior to the meeting is not really beneficial. I didn't check email until after the meeting was over. Please give at least two days advance notice. Regards,	Good morning Mr. Currier, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. Today, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/2/2023	Allen Shattuck	I strongly support the second North Douglas Crossing and urge the Assembly to proceed with the project as rapidly as possible. The main reason I support it is for public safety. If the current bridge was unavailable for any reason, public safety would be severely hampered and could be life threatening. My second reason for supporting it is the improved access between North Douglas and the Lemon Creek/Mendenhall Valley areas. The improved access would in turn also result in shorter drive times and therefore reduce CBJ impact on climate change and result in saving s for local residents. Finally, it appears that the most beneficial crossing point would be the Sunny Point option. Thanks in advance for considering my comments. Allen Shattuck	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
3/2/2023	Matt Robus	Good afternoon, I am aware of this afternoon's meeting of the CBJ Assembly Public Works and Facilities Committee regarding the "second crossing" but am currently traveling out-of-state and cannot attend in person. My understanding is that although only in-person testimony will be heard, it is acceptable to submit written comments to the committee. I have been participating in the North Crossing PEL Study since it's inception and I feel it important to express my opinions on this subject, since CBJ will be an important partner if the second crossing project goes forward. I have attached my comments to this email. Thank you. Best, Matt Robus	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

3/2/2023	Laird Jones	I cannot make the meeting tonight so here is my comment. There needs to be a second crossing which I fully support. I agree with the safety and ease of access and having an alternative route available to Douglas. The only request is to keep the airport access trail accessible for public walking. Laird A. Jones, Juneau resident	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

3/2/2023	Tomas Boutin Juneau, AK	Good afternoon, I do not oppose construction of a so-called 2nd crossing to Douglas Island so long as CBJ taxpayers are not asked for funding and so long as the Mendenhall Refuge is not bisected by the construction. The last time voters were asked about the crossing it was rejected by about a 2:1 margin. I was a member of a group that opposed the measure at that time, a group of about 200 people. The group had foresters, the spouse of a sitting legislator, a CBJ Assembly member, many ADF&G employees and retired ADF&G employees, environmentalists and fiscal conservatives. I had never been a member of such a group, and the political diversity within that group was at least a little remarkable. Avoiding Refuge bisection seems to mean that the crossing must be either near the hospital or it must come off the Mendenhall Peninsula. I suppose that a tunnel would also meet that criterion but I cannot imagine that a tunnel would be feasible. Crossing by the hospital seems to be the least expensive of the three choices. I know that state economists project a continued and significant population decline for Juneau. I hope that CBJ Assembly priorities are selected with that in mind unless CBJ government has information that successfully defeats state population projections. Thank you for your time. Thank you for your hard work for Juneau! Tomas Boutin	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

3/2/2023	Alisha Falberg	Dear Assembly, I am a Douglas resident and oppose the Juneau Douglas North Crossing. I cannot make the Assembly Public Work Session on Juneau Douglas North Crossing PEL Study this evening, March 2, 2023, but have attached comments on my views herein. These comments were also sent to the DOWL engineering group. Thank you, Alisha Falberg	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
3/2/2023	Carole Bookless	I hope the announcement below is not indicative of how this study attempts to get public input. I opened this email at 6:30 pm on March 2. It was sent at 1:20 pm on March 2. Only inperson comments will be accepted at the meeting. I don't believe that a notification sent out the afternoon of the meeting is adequate. The notice doesn't even really say what the focus of the meeting is. How can anyone give meaningful input? An additional crossing is needed to benefit both Douglas Island and Mainland Juneau. Any crossing must minimize the impacts to the Mendenhall Wetlands and neighboring private property owners. The main importance of the crossing is for safety although there would be other benefits. there will be negative impacts as well, but they must be minimized and mitigated as much as possible. I assume that is the point of the study, to identify the plusses and minuses of each possible crossing. My choice is to put the crossing as close to already inducrialized areas and away from undisturbed parts of the Mendenhall Wetlands. Please do a better job of announcing the "public" work session. I put public in quotes because if the public is not aware of the work session, it is not public. Carole Bookless Douglas, AK	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

3/2/2023	Jim Dorn	Madam Mayor and Assembly Members: I have been following this study since the beginning and it appears that all initial alternatives are still under consideration. I assume that at some point a preliminary screening of alternatives will take place to eliminate alternatives that are not feasible based on design issues, estimated cost, professional judgement, environmental concerns and available site data. Until the preliminary screening of alternatives is ready for public comment, it appears there is nothing new from the previous public meetings held by ADPTPF and DOWL to comment on. My previous comments are part of the public record and are being considered by the PEL project team. Regardless, here is a summary of a few important issues from those comments to be included in CBJ's public meeting record: 1) Alternatives in the area from the eastern end of the runway to and including Fritz Cove should be eliminated from further consideration for the following reasons: a) Juvenile king crab are frequently caught in pots between Fish Creek and the North Douglas boat ramp, particularly during late spring. This area is an important rearing area for king crab and important for recovery of the king crab personal use harvest in the Juneau area. b) Several hundred personal use dungeness crab	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		pots are set each summer between Fish Creek and the North Douglas Boat ramp. This area is an important rearing and personal use harvest area for dungeness crab. Personal use crab fishing is an important part of the Juneau economy. c) During the peak of the coho and king salmon season there are regularly 50 to 100 boats in Fritz Cove targeting returning salmon between Fish Creek and the North Douglas boat ramp. This fishery in important to Juneau sport fishers and charter operators. Sport fishing in Juneau is an important part of the local economy. d) During coho and king salmon season over 60 people are regularly observed between Fish Creek and the eastern edge of the airport runway targeting fish returning to DIPAC. This area is important to Juneau sport fishers and provides one of the best shore based fisheries in Alaska. Sport fishing in Juneau is an important part of the local economy. e) Each summer kayak tours leave the North Douglas boat ramp and paddle to Fish Creek. Over the course of the summer there are literally several thousand tourists that take this tour. The Fritz Cove area is important to Juneau's tourism industry. With regards to crossing alternatives between the				

		eastern end of the runway and Salmon Creek, consideration should be give to an elevated crossing on concrete pilings to allow unrestricted sediment movement resulting in minimum impact to the Mendenhall Wetlands Wildlife area and to fish passage. Thank you for the opportunity to comment. Jim Dorn				

3/3/2023	Patty Wahto Airport Manager Juneau International Airport	Hi Morgan. I submitted comments early on when the comment period opened through the online portal. Was that kept with the TAC comments or public comments? It would have been from me on behalf of the Juneau Airport. Thanks much. Patty Patty Wahto Airport Manager Juneau International Airport	Good afternoon Patty, We keep all comments together. The comments your sent early on are included in the PEL Study comment log. We shared the comments within the latest comment period at this point with the Advisory Committees as they are the most relevant at this point in the study. All comments will be shared at the conclusion of the PEL Study. Let me know if you have any other questions or concerns. Best regards, Morgan McCammon	3/3/2023	M. McCammon	Advisory Committee Comment

3/3/2023	Barb Mecum Friends of Fritz Cove	Good Morning, Yesterday evening, Thursday, March 2, the CBJ Public Works Committee held a meeting to take public comments regarding the Second Crossing. Steve Noble presented an update on the status of the PEL Study which was very helpful. Prior to the meeting, the Friends of Fritz Cove sent the above email update for the record since the CBJ indicated it would take comments in lieu of in-person comments, but when I inquired of Ms. Koester and Mr. Bryson how and whether our emailed comments would be read into the record that evening I was told no, they would not be. Many of us were able to be on Zoom for the meeting, but were unable to attend in person. So I am sending this along to you as an update to the record. We continue to grow in numbers and are now up to 98 signers on the electronic petition, and another 6 on a paper petition for folks who preferred that method, so a total of 104 friends and neighbors who are in opposition to a second crossing at the Mendenhall Peninsula to the vicinity of the North Douglas Boat Launch. Please let me know you have received this email, and that ii has been added to the record. Also, I am wondering if this email/petition will be shared with the members of the Stakeholder and Technical Committees meeting this Monday, March 6? Thank you, Barb Mecum Friends of Fritz Cove ---------- Forwarded message --------- From: Friends of Fritz Cove Date: Tue, Feb 28, 2023 at 1:46 PM	Good morning Barb and the Friends of Fritz Cove, Thank you for sharing these comments and an update on the petition with the study team. We will include them in our comment records. Best regards, Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

		Subject: ATTENTION: Ms. Koester, Members of the CBJ Assembly Public Works & Facilities Committee - To: Katie Koester, BoroughAssembly@juneau.org Cc: Friends of Fritz Cove, Barb Mecum Dear Ms. Koester, CBJ Assembly Members, and CBJ Public Works & Facilities Committee Members: The Friends of Fritz Cove appreciate the opportunity to submit written comments in lieu of testifying in person at the Public Works and & Facilities meeting this Thursday, March 2, as it takes public comment on the Second Crossing. The Friends of Fritz Cove submits our petition with 98 signatures to date as our official position regarding the Second Crossing. We are in opposition to a bridge crossing from the Mendenhall Peninsula to the vicinity of the North Douglas boat launch. Please add this to the public record for the project, and let us know with a reply here that you have received this email. Thank you, Friends of Fritz Cove See email dated 3/3/2023				

3/3/2023	Dee Lee	It would be appreciated if these notices could go out sooner than the day of the event. 1:20 pm send for a 5:00 pm meeting is not acceptable time frame for notification. Thank you for considering more appropriate communication.	Good morning, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. Yesterday, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/3/2023	Ron Somerville, MWSG	Morgan, the presentation last night at the CBJ meeting included an analysis of the crossing survey was presented with bars showing preferences by crossing location. I was unable to get a copy of that chart. Could you e-mail that to me please? Thanks Ron	Good afternoon Ron, This survey analysis will be covered in more detail at Monday's Advisory Committee meeting. I am getting ready to send out an email to the group that will include the Level 1 Screening Memo. We will share the presentation following the meeting so you will have all the charts. Please note that we don't expect everyone to have completely reviewed these materials prior to the meeting. Additionally, we are sending out the comments received during the comment period. We are not soliciting comment on these, rather we are responding to the request for Advisory Committee members to have an opportunity to see them. We look forward to talking with you on Monday. Morgan McCammon	3/3/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/3/2023	Mary Ann Dierckman	Please send notice of future meetings two days in advance. I received this email on the day of the meeting. I did sign up for future notices. Additional comment Morgan,thanks this was very helpful information.	Good morning Ms. Dierckman, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. The day of, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon	3/6/2023	M. McCammon	CBJ Assembly PW&FC Work Session

3/3/2023	Carl Broderse n	Dear Assembly Members, Thanks for all your hard work! Opinion: I strongly prefer the Vanderbilt crossing option. -Is a good balance between preserving precious wetlands and still providing travel time benefits. -It could probably be built without eminent domain. -Connects well with existing road infrastructure. -Should reduce traffic on Douglas Highway by making Egan the best option for half of every trip. -Doesn't destroy areas around mouth of the Mendenhall, some of the coolest parts of town. Second choice: Twin Lakes (assuming Dougas lots can be purchased from Northstar Trekking). The Douglas bench road is a cool concept, but it would cross a thousand creeks and open the City to endless lawsuits when concentrating that water through culverts inevitably floods homes. Analysis: Using google Earth, I measured the travel distances from centers of population (Out the Road, Valley, and Lemon Creek) to the start of the Eagle Crest Road and the Douglas Roundabout. I noted which drives are improved or worsened by more than a mile (a margin of error), or were not impacted (new distances are within a mile of the current distance). All drives to the Douglas Roundabout (DR) were the same length under all options except the Mendenhall Peninsula Option, where they are substantially worse. All drives to the base of Eagle Crest's Fish Creek Road (ECR) were improved, except for again the Mendenhall	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		Peninsula option, where they were the same. The North Airport and East Sunny Point options have essentially the same benefit in distance reduction (~26.5 miles total improvement across all six driving distances for each of the options). Vanderbilt comes in just under 24 miles improvement and Twin Lakes at 20 miles. The areas through which the Mendenhall Peninsula and North Airport options would cut are some of the most beautiful and precious in the City. These options should be abandoned for that reason alone, but also because their improvements in driving distance are inadequate or replicated by other routes. E. Sunny Point should be abandoned because it would cut through a great deal of wetlands and is so close to better options; and let's be honest, Sunny Point can afford to tie it up in litigation for years. That leaves Vanderbilt and Twin Lakes! They'd benefit driving times equally for all main northern population centers, and reduce Eaglecrest traffic on Douglas even from downtown. And when West Douglas is built, it will help get that traffic off half of Douglas Highway, and reduce travel times the most evenly. Thank you. -Carl Brodersen				

3/3/2023	Jim Dorn	Hi There, Are the Advisory Committee Meetings open to the public and if so how do I find out where and when they are being held? Thanks,	Good morning Mr. Dorn, The Advisory Committee meetings are not open to the public. The Committee members include representatives from a wide variety of organizations: government and regulatory agencies, local government, tribal government and organizations, community groups, environmental organizations, recreation groups, business organizations, and neighborhood associations. We will be emailing another update newsletter this spring and will host a public open house this summer. The study team welcomes concerns, questions, and comments from everyone throughout the process. Please visit the website at www.jdnorthcrossing.com for the latest information. Kind regards, Jovie Garcia	3/10/2023	J. Garcia	

3/5/2023	Glenn Saviers	Good morning, Will you be having another session with public testimony, since the notice went out only a few hours before the scheduled session? I'm sure lots of people did not see it in time. Thanks, Glenn	Good morning Mr. Saviers, Thank you for sharing your concern. The PEL study team was invited to participate in this City and Borough of Juneau (CBJ) Assembly Public Works & Facilities Committee Work Session. The day of, we received the information release sharing that this work session would provide an opportunity for public testimony to the CBJ Assemblymembers present. We wanted to share this information with community members who expressed interest in the PEL study. For those unable to attend this work session, the CBJ Assembly is offering to accept written comments through their website: https://boroughassembly@juneau.gov. The PEL study team would appreciate receiving a copy of those comments at jdnorthcrossing@dowl.com. Best regards, Morgan McCammon Additional response Good Morning, I am sorry you were not able to attend the worksession; I want to assure you this will not be the last time an Assembly committee takes public testimony on the project. As the project progresses, CBJ Assembly will create venues for the public to communicate directly with their elected officials. At any time, please feel free to submit your comments electronically to Borough Assembly <BoroughAssembly@juneau.gov> CBJ issued a press release February 24th. We also	3/6/2023	M. McCammon	CBJ Assembly PW&FC Work Session

			forward it to members of the advisory committees, since CBJ is a member of both. Public Worksession on Juneau North Douglas Crossing Project Scheduled for March 2 – City and Borough of Juneau We sent a reminder press release (and facebook post) out on the day of, which is what DOWL picked up and forwarded to their list. Better coordination next time is a must! You can sign up for CBJ press releases by emailing the Clerks: Clerks Office Clerks.Office@juneau.gov. I will add your email to the list CBJ keeps for this project. If you are interested, the Zoom meeting recording is available on CBJ's YouTube page. Relevant links are included below. Best, Katie Koester CBJ EPW Dir. SOA DOT&PF Presentation - 3/02 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf YouTube Zoom Meeting Recording – 3/02 PWFC Worksession https://www.youtube.com/watch?v=BgTAONJ7qFs Project Website https://jdnorthcrossing.com/ Municode – All CBJ Agendas & Packet Materials https://juneau-ak.municodemeetings.com/			

3/6/2023	Ron Somerville	Morgan, I cannot find the graph presented at the CBJ meeting showing the support for the various crossing alternatives. Could you please send that graph to everyone. Thanks Ron Somerville	Good afternoon Ron, We will share the advisory committee presentation following our meeting this afternoon. The CBJ shared the presentation from the March 2, 2023, Assembly Work Session in the packet available on the CBJ website: SOA DOT&PF Presentation - 3/02 PWFC Worksession Packet https://mccmeetings.blob.core.usgovcloudapi.net/juneauak-pubu/MEET-Packet-697bc2c08af94ab084b4caa3522f6a48.pdf Best regards, Morgan McCammon	3/6/2023	M. McCammon	Advisory Committee Comment
3/6/2023	Hunter Mecum	Ms. Mecum called to ask who the advisory committee members were and how they were appointed. I shared that the advisory committees were made up of representatives of regulatory agencies, local government, tribal organizations, community groups, business interests, enviromental groups, and neighborhood associations. She asked if someone was representing North Douglas. I shared that NDNA and BBNA were both members. She said she had never heard that neighborhood associations existed and she lived on North Douglas for 28 years. I let her know that neighborhood association contact information could be found online and asked if she would like a contact. She said she would look it up.	Phone conversation	3/6/2023	M. McCammon	

3/7/2023	Glenn Saviers	Hi Morgan, Thank you for this. However, I want to clarify, will there be more opportunities for verbal testimony in front of the assembly or whichever committee is going to have deciding power on this matter? This is a huge deal for our city and for many people who live here, so I want to make sure we'll all get adequate notice of verbal testimony opportunities in the future. Thanks, Glenn	Good morning Mr. Saviers, We wanted to make sure you had seen the email sent on March 6, 2023, from Katie Koester, Director of CBJ's Engineering and Public Works Department. She notes that the Assembly will be offering additional opportunities for public testimony. The Alaska Department of Transportation and Public Facilities (DOT&PF) is the decision maker regarding which alternatives are recommended to move from this PEL Study into a potential future project that would include public involvement opportunities. One purpose of a PEL Study is to engage the public and agencies early in the planning process. This process evaluates alternatives qualitatively and quantifies potential impacts, positive and negative, based on objective criteria and professional judgement, to provide recommended alternatives that will be looked at more closely as part of a future project including preliminary engineering and environmental impact analysis. Please let us know if you have any further questions or comments you would like to share. Kind regards, Jovie Garcia	3/10/2023	J. Garcia	

3/13/2023	Angie Lunda	Thank you for the opportunity to comment on the proposed crossing to Douglas Island. As an enrolled member of a federally recognized tribe whose homelands include the area impacted by the proposed crossings, my first option is the NO BUILD option. We have been stewards of Tlingit Aani since time immemorial and that is how I approach this proposed crossing. Zero environmental impact is the best option and that is only possible with the NO BUILD option. However, it seems that the powers-that-be have already decided to build a crossing. IF that is the case, then the only conceivable alternative is the Vanderbilt option which would have the least impact on the wetlands. Any option north of Vanderbilt must be rejected in order to protect the delicate and productive wetlands at all costs. The Salmon Creek option may be considered as it, too, would have less impact on wetlands, however, the impact on the hatchery and shipping - uses currently in place at this site, must also be considered. #1 - NO BUILD #2 - Vanderbilt #3 - Salmon Creek No other viable options Sincerely, Angela Lunda	Good afternoon Ms. Lunda, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Talli Vittetoe	3/15/2023	T. Vittetoe	

3/15/2023	Catherine Pohl	Dear PEL Team leadership, I have attached a letter with reference links to help you patch up deficiencies in the wildlife and habitat information you have presented in your Wildlife Technical Memo and Settings documents. It is my view, as a wildlife/habitat biologist with regulatory experience, that you have not presented enough information to credibly address in even the most approximate way the magnitude of the resource or the relative effects of crossing alternatives. Catherine Pohl See Attached document dated 3/15/2023	Good afternoon Ms. Pohl, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Talli Vittetoe	3/16/2023	T. Vittetoe	
3/15/2023	Betsy W. McCracken EPA Biologist	Hello Morgan, I would like to request additional time for agency comment submittal. I have been out of state for the past month tending to my Mom's failing health. I would appreciate an additional minimum 7 days (until at least March 27th.) for my agency to draft and provide comment on the PEL study and alternatives for the JD Highway. Is it possible to receive the requested extension on the comment deadline? Thank you, Betsy Betsy W. McCracken Hi Jovie and Talli, Please see my email below requesting a comment deadline extension.	Ms. McCracken, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your request with the project team and will have an answer for you by the end of day tomorrow, after the team reviews the schedule. Kind regards, Talli Vittetoe Additional response Ms. McCracken, Thank you for your patience while the project team reviewed schedule deadlines. We are able to give you a one-week extension to provide comments on the screening and alternative recommendations, and appreciate your willingness to provide feedback. Kind regards, Talli Vittetoe	3/16/2023	T. Vittetoe	Advisory Committee Comment

		Thank you, Betsy				

3/15/2023	Betsy W. McCracken	Hi Jovie and Talli, Please see my email below requesting a comment deadline extension. Thank you, Betsy Hello Morgan, I would like to request additional time for agency comment submittal. I have been out of state for the past month tending to my Mom's failing health. I would appreciate an additional minimum 7 days (until at least March 27th.) for my agency to draft and provide comment on the PEL study and alternatives for the JD Highway. Is it possible to receive the requested extension on the comment deadline? Thank you, Betsy	Ms. McCracken, Thank you for your patience while the project team reviewed schedule deadlines. We are able to give you a one-week extension to provide comments on the screening and alternative recommendations, and appreciate your willingness to provide feedback. Kind regards, Talli Vittetoe	3/17/2023	T. Vittetoe	Advisory Committee Comment
3/16/2023	Catherine Pohl	Hi Christy, Thanks for the conversation today. I guess I should say that I am a former ADF&G Habitat Biologist with experience reviewing this sort of the project. I also have worked for a few decades (yikes!) in bird population monitoring and research. So I like to see the best information brought to bear on decisions, and I find it frustrating when hard-earned data is not used. Here is the annotated reference list. The letter to Kristen is below. I'll take a look at the data tables for Hotspots and see what I can pin down about them. Richard is	Hi Catherine, Thank you for sending the annotated reference list and for sharing this information! Would you be available to meet next week to go over the list with our Project Team? They are not all located in Juneau so it would be scheduled with either Teams or Zoom. Please let me know. Thanks again, Christy Gentemann	3/17/2023	C. Gentemann	

		working on a few other projects but should be available to answer questions about it as they come up-- a nice thing about both of us having home offices. If it turns out a bigger chunk of work on that is involved to make sense of the old data tables, I may need to work with the other project partners and would check in with you and Kristen before proceeding.				
3/17/2023	Matt Robus	Good afternoon, Morgan, Please find attached the comments of the Mendenhall Wetlands Study Group on the draft Level 1 screening document for the proposed North Crossing. Ron Somerville, your main MWSG contact, is having email difficulties and asked me to forward these comments to the PEL group. Thanks for considering our input. Mendenhall Wetlands Study Group See letter dated March 17, 2023	Good morning Matt, Thank you for sharing these comments, we appreciate the input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

3/17/2023	Krista Garrett	Hello PEL Study Team and Advisory Committees, Please find attached the Southeast Alaska Land Trust's comments regarding the Level 1 Screening Results Technical Memorandum. Thank you. See SEALT Comments on Level 1 Screening Results	Good morning Krista, Thank you for providing these comments. We appreciate your input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3
3/17/2023	Winston P. Smith, Ph.D.	Ms. Whitesell: Please find attached a letter detailing comments from the Juneau Audubon Society regarding recent decisions and new information by DOWL related to the PEL study. Please feel free to contact me with any questions about the comments or the letter. See comment letter dated 20 March 2023	Good morning Winston, Thank you for sharing your comments with Renee. She has shared them with the team, and we appreciate your input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

3/17/2023	Catherine Pohl	Dear Ms. Hansen, I hope you don't mind that I am contacting you directly. I am a semi-retired habitat and wildlife biologist, formerly of ADF&G Habitat Division. I read your Technical Memo on wildlife for the Juneau North Crossing PEL study yesterday and put together the attached letter listing existing wildlife/habitat references in response. I sent it to the PEL team but also wanted to discuss it with you. The key items are the "Hotspots" report summarizing bird observation on the refuge and the SEALtrust 2004 refuge habitat mapping report. These should be the starting points for anyone interested in birds and habitat on the refuge and would help to fill the serious gaps in your wildlife/habitat information. I also wanted you to know that GIS data is available for these. You could ask SEALTrust about the vegetation map and potential for updating it. Data tables and their related survey point shapefiles for the Hotspots survey are also available, at least in theory. Richard Carstensen, one of the authors, is currently the steward of these. I will be looking to have them archived with USFWS if they don't have them already, and with ADF&G. That may involve putting together some metadata and working with Richard to reconstruct or describe some of the summary queries. The points are available now. The Hotspot data set is complex, including a full year of structured surveys done at the time, additional site surveys at that time, summaries of the previous refuge bird survey (1986), and compilation of an enormous set of birder field notes, 80% of which were from leading Juneau birder Paul Suchanek.	Sent to K. Hansen. Additional response in Level 1 Screening			

		EBird could be a source for more current information and I see that you have queried it, although I suspect that more would be available there. I would like to ask how your selected the points presented in the Tech Memo. Species numbers are one aspect, but species groups, key species and numbers by species and group are particularly of interest on a wildlife refuge. For all of this data, it is important to understand the strengths and weaknesses of it. Ebird data is focused on trails and the most popular roadside access points. The survey data was also limited to some degree by access, so much of it focuses on the edges of the refuge where access is available. Best,				

3/19/2023	Dave Hanna	Greetings, Below are my comments on the ranking of the alternatives and the process used: To begin with, I feel one of the most important parts of the process has a serious flaw and this is the projected traffic study. To only consider current traffic needs and patterns for a project that is meant to allow growth for the community is unacceptable. The North and West side of Douglas Island are the logical candidates for residential, commercial, and industrial expansion. Indeed the fact that all of Juneaus' freight and most of its fuel has to be trucked through an avalanche zone and a landslide zone through the heart of town on its busiest street gives many of us pause and is a strong incentive for moving these facilities to West Douglas. With this in mind, it is premature to remove both the north of the airport alternatives. The actual ratings of the alternatives reveal some additional shortcomings. I will address some of these in order. The Salmon Creek alternative does mention that there are concerns with right of way acquisitions. It could go on to explain that this area is currently the only alternative location to bring large freight barges into and handle the freight loads. Two of the major freight distributors are located here which is also concerning. Disrupting this could have serious consequences. The Vanderbilt location would have a direct impact on the following streams; West Creek, East Creek, Switzer Creek, Lemon Creek, and Vanderbilt Creek. It would also require substantial fills in the intertidal areas.	Good morning Dave, Thank you for sharing your comments, we appreciate your input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

		In contrast, The Sunny Point location is strategically located at the existing interchange needing little fill in the wetlands and would not impact any of the above mentioned streams. Three of these streams are already listed as impaired waterbodies. On the Douglas Island side, the city already owns enough property that no residences need be impacted. They also own property directly across the Douglas Highway which would allow access to a future bench road. The north side of the airport scored low for some puzzling reasons. A low scoring for proximity to commercial districts flies in the face of reason. Any realtor will tell you that proximity to a major thoroughfare raises the value of the property. It does not diminish it. This alternative would actually open up more industrial zoned property. Future development on West Douglas will demand quick access to the Mendenhall Valley population center. Furthermore, it is debatable as to the need for a tunnel in this location. The Mendenhall Peninsula route is another that would be ideal once North and West Douglas are developed. The pitfalls are stated that it would divide neighborhoods, be too close to residential areas and necessitate a 140' tall bridge due to the grade change. The fact is the central route would appear to avoid all existing residential as it opened up additional CBJ land for much needed housing. A perusal of google earth shows that there is adequate space to maintain a desired 6% grade down to a 40' elevation. This is a dramatic difference. In addition, I feel that the fact that this option would likely have the least impact on the Mendenhall Refuge needs more recognition.				

		For these and other reasons I request that the ranking be re-visited. In addition, I feel that none of the alternatives can be seriously considered until the issue of not considering future development is cured.				

3/20/2023	Irene Gallion	Hello All, Attached is an analysis that seems to show that Eagle Creek, Salmon Creek and Twin Lakes do not improve emergency response times, and should be removed from consideration. Sunny Point provides the best leverage for emergency response time. Thank you, See CBJ letter dated 3/20/2023	Good morning Irene, Thank you for providing this analysis. We appreciate it. Morgan McCammon	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3
3/20/2023	Roy Churchwell	Hello Morgan and PEL Study Team, I wanted to get you a couple of comments as you asked for those comments by today. I was not able to attend the last technical committee meeting, but I have looked over the documents and presentation from that meeting. It was good to read Krista Garrett's comments from SEALTrust, and I agree with their perspective including comments on the viewshed and consideration of the Mendenhall Wetlands Management Plan laying out regulation for using alternatives off the Refuge if they are feasible. I have just one additional comment beyond those of SEALTrust. I would suggest that both the Sunny Point Area and West Sunny Point Area should include the comment, "It encroaches into traditional and popular duck hunting area." Currently, this comment is only associated with the Sunny Point Area. A bridge crossing at Sunny Point and West Sunny Point Areas will likely end duck hunting as we know it on the Refuge. There are hundreds of people, mostly from Juneau who use this resource, but because about one third of hunter currently use this area it would be difficult to move that use across the	Good morning Roy, Thank you for your comments, we appreciate the input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

		remainder of the refuge, and I imagine we would have to end or drastically change how hunters use the Refuge if the bridge crosses this location. Thank you for this additional opportunity to comment on the Level 1 Screening Results document. Roy				
3/20/2023	Mike Stanley	Dear Ms. McCammon and JD North Crossing Study Team, Attached please find the comments of the North Douglas Neighborhood Association, Second Crossing Committee, on the Level I screening results. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you. Mike Stanley Chair, Second Crossing Committee NDNA See letter dated MARCH 20, 2023	Good morning Mike, Thank you for sharing your comments, we appreciate the input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

3/20/2023	Christine Woll	Hi Morgan - Thank you for this opportunity to comment. I have a few related comments for consideration. I am speaking as an individual and do not represent the Assembly as a body in my comments. The stated reason for many who support a second crossing is ability to develop on the west side of Douglas Island. As a result, there may be many people and groups who are disappointed to not see the two northernmost options move forward, given that they provide the shortest route from this area to the Mendenhall Valley and hospital. If you move forward with eliminating these choices, I would suggest you better document the reasons for removal (ie., the infeasibility of these options). For example, providing a cost estimate of these options in the memo would provide a more compelling argument that these options are worth eliminating at this phase. Otherwise, you will have many in the community continue to hold up these alternatives as the best alternatives, which will severely hamper the ability of the community to bring this project to fruition. If you are not able to provide a bit more detail on the cost/feasibility for those two alternatives, I'd suggest moving those alternatives forward to the next stage so that you CAN provide that detail. Although I agree that these two alternatives are likely not the best routes given those feasibility concerns, I do worry that if there is still questions in people's minds about that then the project will hit political roadblocks early. On a related note, my understanding is that a second crossing can only be built across the	Good morning Assemblymember Woll, Thank you for sharing your personal comments, we appreciate your input. Additional response in Level 1 Screening	3/20/2023	M. McCammon	Advisory Committee Comment - Meeting 3

		Refuge if it can be shown that other alternatives are not feasible. I'm not legal expert, but that suggests to me that providing more detail on the feasibility of the Mendenhall Peninsula option will be necessary if people want to move forward with any of the options suggested that run through the Refuge. I'm not advocating for those alternatives that run through the Refuge nor the Mendenhall Peninsula option, but instead just pointing out that more feasibility information may be helpful for the northern routes to answer important questions early. Thanks, Christine Woll				

3/20/2023		NORTH DOUGLAS NEIGHBORHOOD ASSOCIATION SECOND CROSSING COMMITTEE COMMENTS ON PEL STUDY LEVEL I SCREENING RESULTS MARCH 20, 2023 The Second Crossing Committee of the North Douglas Neighborhood Association (NDNA) has reviewed the Level I Screening Results presented in a technical memorandum dated March 2, 2023, and also participated in the Technical and Stakeholder Advisory Committee meeting on March 6, 2023, and has the following comments on the screening results and issues that the PEL study team will be considering at Level II Screening. The PEL study team has recommended that only five of the preliminary alternatives advance for further detailed development – West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek. Consistent with our prior comments (and also with comments we made during the last round of second crossing review, in 2005-07), NDNA does not take a position on which of these alternatives is preferable or that best addresses our concerns about impacts to the North Douglas area and our neighborhood. But we want to make several points regarding how these alternatives should be evaluated. 1. We continue to believe that the decision whether to build a second crossing and, if so, where, would benefit from an area planning process for North Douglas. We have been asking for an area plan for over two decades, to be conducted within the framework of the CBJ Comprehensive Plan, and will continue to pursue that goal. An area planning process would not only address issues related to a second crossing,	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		but would also consider impacts to North Douglas associated with other developments, including (but by no means limited to) the Eaglecrest gondola, expansion of the boat launch, potential commercial uses of the pioneer road, and further development around Fish Creek Park. We understand that a planning process is not within the scope of the PEL study, but it would make sense to retain all of the alternatives that passed Level I screening for possible review in such a process were it undertaken in the reasonably near future. 2. The overview of the Level II screening process identifies two main goals: to screen the remaining alternatives using a broad range of qualitative and quantitative criteria, and to compare and rank the detailed alternatives. Done right, this should provide a useful analysis, as it would allow the decision-makers (DOT and/or CBJ?) to evaluate which of the alternatives makes the most sense. Ranking would also provide the public a better understanding of the advantages and disadvantages of each alternative. And it would result in a suite of alternatives that could be considered in a subsequent NEPA process. It would thus be premature at this point to eliminate any of the current alternatives that have been advanced for further review. 3. The Salmon Creek alternative scored well on a number of the Level I screening criteria, and has the additional advantage of being the only remaining alternative outside the Mendenhall Wetlands State Game Refuge, which is a Section 4(f) property. The technical memorandum indicates that a thorough 4(f) review will be conducted during the ensuing NEPA process (assuming the project proceeds to that phase), and				

		it is therefore essential that the Salmon Creek alternative remains in the mix at the conclusion of the PEL study. The study team has preliminarily identified construction challenges for this alternative related to the Egan/Channel Drive intersection, but these are only generally described and are not the product of a rigorous and complete engineering analysis. 4. We reiterate a point we have made before: any alternative that proposes a transit corridor through the refuge must NOT include a substantial embankment/fill component, but should only be constructed as a raised structure, on pilings and abutments. The environmental impacts to the refuge from an embankment/fill structure will not pass scrutiny under 4(f) or other applicable standards. 5. In our comments on the preliminary alternatives, we commended the study team for including discussion of a bench road on North Douglas. While we understand that a bench road is not part of the PEL study, it would nevertheless be very useful if the remaining alternatives were evaluated based on their potential for connection to a bench road and the impacts to our neighborhood that would entail. In other words, the analysis should not be confined to assessing where and how crossing termini would intersect the North Douglas Highway, but should also consider the potential for connecting to an uphill bench road if one were built. The purpose and need statement emphasizes the goal of improving connectivity between the mainland and Douglas Island, and limiting the analysis to a brief description of where each alternative would land on the island side of the channel does not serve that purpose. 6. The stakeholder presentation described both					

		Sunny Point alternatives as having the advantage of terminating on CBJ property (at Hendrickson Point), and in the case of the west alternative, a further advantage of avoiding SEAL Trust conservation property. But the CBJ property at Hendrickson Point is designated as a "conservation area" under the current CBJ Comprehensive Plan (2013). Conservation areas are "lands recognized with high environmental qualities that are set aside for the protection and management of the natural environment…" (CBJ Comprehensive Plan, at 144). Hendrickson Point is an ecologically sensitive area, with important upland habitat adjacent to the Mendenhall Refuge. It also provides a view shed for homes in the area. The PEL study team should consider the status and environmental values of the CBJ property at Hendrickson Point during Level II screening. Thank you for considering these comments.				

3/20/2023	Merry Ellefson	Mayor and CBJ Assembly, Attached please find the comments of the North Douglas Neighborhood Association (NDNA), Second Crossing Committee, on the PEL Level I screening results. As a primary stakeholder, we appreciate your consideration of our history and feedback. We look forward to continuing to connect with all of you in person, working to better understand the decision-making points and process. I've also included NDNA's public testimony from August, 2022 as we support and sustain a vibrant, healthy neighborhood and larger CBJ community. Thank you for your hard work and time, Merry Ellefson For the NDNA Crossing Sub-Committee	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

3/20/2023	Bruce Baker	TO: jdnorthcrossing@dowl.com, the designated representative for: Alaska Department of Transportation & Public Facilities P.O. Box 112506 Juneau, AK 99811 AND City & Borough of Juneau 155 S. Seward Street Juneau, AK 99801 Subject: Your recommendation that the Mendenhall Peninsula second crossing alternative NOT advance to Level 2 Screening I support your recommendation that the Mendenhall Peninsula second crossing alternative NOT advance to Level 2 Screening because it is likely to have the highest construction and maintenance costs, owing to the length of structures and associated infrastructure needed to construct it. You conclude that the Mendenhall Peninsula option is potentially "fatally flawed" from a constructability perspective. Moreover, the Mendenhall Wetlands Study Group (MWSG), in its January 30, 2023 document, identified the Mendenhall River mouth as "the most important feeding habitat in the Refuge for waterfowl, terns, shorebirds, and other seabirds (Armstrong et al. 2009) and constitutes an important sand lance spawning area." The study group stated and that "If this alternative cannot be routed so as to avoid impacts to the Mendenhall River Estuary it should not go forward for Level 2 screening." and that "Tunneling from the Peninsula might be a better alternative if this route is	Good afternoon Mr. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	3/20/2023	M. McCammon	

		seriously considered." The reality is that the area of the North Douglas boat launch and the south end of the Mendenhall Peninsula are very much within the Fritz Cove-Mendenhall River estuary, and a crossing there should not be further considered. Sincerely, Bruce Baker				
3/20/2023	Scott Spickler	I would like to voice my support for the Sunny Point access location for the ND crossing. This appears to be one of the more cost effective choices with the least environmental impact. Thank you,	Good morning Mr. Spickler, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	3/21/2023	M. McCammon	

			Morgan McCammon			
3/21/2023	Julie Bednarski	Hi, I was just in my spam account and saw this. I'm not sure if everyone saw this, and I think it's worth passing onto everyone if not, so sorry if it's already old news. It's from Roy Churchill the ADF&G Juneau Area Wildlife Manager.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
3/22/2023	Jim Dorn	Greetings, As you move into the next phase of the PEL Study I believe it is critically important to consider construction designs that will minimize the impact on wetlands, sediment transport, salmon transit and waterfowl habitat. For these reasons I believe it is important to consider an elevated roadway across the wetlands as opposed to an earthen fill structure. Please see the attached pdf (photos) for some photos showing possible ideas, some of which are located in Alaska. Thanks, See photos dated 3/22/2023	Good afternoon Mr. Dorn, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and crossing structure ideas with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	3/22/2023	M. McCammon	

3/27/2023	Betsy W. McCracken EPA Biologist Wetlands & Oceans Section Water Division Alaska Operations Office	Good evening, Please see attached EPA comments on the JD North Crossing. Thank you, Betsy See letter dated 3/27/2023	Good morning Betsy, Thank you for your comments, we appreciate the input. Additional response in Level 1 Screening	3/28/2023	M. McCammon	Advisory Committee Comment - Meeting 3
4/14/2023	Dave Hanna, StAC Member	Morgan, Thank you for keeping us posted. Do we have a date set for the next meeting? Thanks, Dave	Hi Dave, We do not have a date set yet and have not yet confirmed the format. These are details we hope to share soon. Thank you for checking. Morgan McCammon	4/14/2023	M. McCammon	Advisory Committee Email
4/21/2023	Ron Somerville, MWSG	Morgan: Our working group (Mendenhall Wetlands Working Group) would like to request a meeting with the 2nd crossing Dowl Group. Of course we would request it here in Juneau some date after April 27. Your help in setting up this meeting is greatly appreciated. Let me know what I can do to help. Much appreciated. Additional response Morgan, we need to schedule after the 27th as key folks are not available before then. Any date after the 27th should be fine. Go ahead and set a date and I will run it by everyone here. Thanks	Good morning Ron, Thank you for reaching out. The study team would be happy to meet with you. I would like to check if you are wanting to schedule this meeting prior to or following the next Advisory Committee meeting. I ask this because we said that the next meeting was scheduled for the end of April. Or if after April 27 is the best timing for the working group. Either way, I will get a meeting scheduled. Thank you,	4/21/2023	M. McCammon	Advisory Committee Email

4/25/2023	Patty Wahto Airport Manager Juneau International Airport	Thank you again for the great meeting this morning. Nice to see everyone in person. Below are the best contacts I have for Alaska, Delta and ATC for air traffic and approaches to JNU (and RNP) Patty	Meeting follow up.			Advisory Committee Email
4/25/2023	Phil Adams A.A.E., ACE Deputy Airport Manager Juneau International Airport	I agree, it was nice to meet you all in person! Below is the contact information for AK Seaplanes and for Island Air, pertaining to their RNP approaches.	Meeting follow up.			Advisory Committee Email
4/25/2023	Patty Wahto, JNU Airport Manager	Onsight Visit- Meeting with Patty Wahto regarding the Juneau Second Crossing Patty expressed concern regarding any changes which would impact the existing and future approaches. She stated that the Airport has requested Runway end 26 MALSR from their Congressional delegation. The MALSR off the 26 end would reduce visibility minimums for this approach. This information was provided to DOWL and State DOT employees present during the meeting in the form of meeting notes.	On-site meeting	4/25/2023	B. Mello	On-site meeting

4/27/2023	Ron Somerville, MWSG	Morgan, I am trying to schedule several meetings and was wondering if you had selected a tentative date for our requested meeting with the Dowl team on the second crossing? If you had an approximate date, it would be helpful. Thanks. Additional Response Morgan, this works for all 4 of us. Just give us a time and location or instructions for zoom or similar. Ron	Good afternoon Ron, Would you be available the afternoon of Thursday, May 11? Morgan McCammon	4/27/2023	M. McCammon	Advisory Committee Email
5/1/2023	Matt Little Director of DU Public Policy, Western Region	Hi Morgan, please add me to your email outreach list for this project. When is the next comment period re: alternatives? Thank you,	Good morning Mr. Little, Thank you for reaching out. I have added you to the contact list for this PEL study and to the Stakeholder Advisory Committee. The study team is accepting comments throughout the PEL Study at the study email address, jdnorthcrossing@dowl.com. Comments received earlier are easier to incorporate. We will soon be sharing the final Level 1 Screening Memo, updated based on Advisory Committee member input. Additionally, we will be scheduling the final Advisory Committee meeting soon. This meeting will present the results of Level 2 Screening, offer a committee discussion, and provide a comment period following. The draft PEL Study will be shared publicly with a comment period this summer, and finalized in the fall. Best regards, Morgan McCammon	5/2/2023	M. McCammon	Advisory Committee Email

5/2/2023	Royal T. Hill Jr. Tribal Development Department Central Council of the Tlingit and Haida Indian Tribes of Alaska	Good afternoon, I am curious on how it came to be that there would need to be a tunnel for the North Airport crossing. I was involved in this group, and we established that the road can be 500 feet from the end of the runway. I even mentioned during one of the meetings that when we drove pilings for the Brotherhood bridge that we did not hit bedrock until we hit the depth of 175 feet. A tunnel is not possible because it is all silt. This route is the shortest distance and doing a Key West style crossing would be the cheapest option. Thank you everyone.	Good afternoon Mr. Hill, Thank you for your question. After discussions with the Juneau Airport (JNU) manager and major air carriers, it was determined that any crossing near the north side of the airport would need a tunnel. At JNU, the Runway Safety Area (RSA) extends 600' beyond each runway end. The proposed alternative crosses approximately 500' beyond the western runway threshold and will be inside the RSA. FAA requires any above-ground features within the RSA to be frangible or fixed by function (e.g. Navigational Aids typically), which would not include a road or bridge. Moving the road alignment westward to avoid the RSA is also not an option. The road alignment would have to be far enough west to avoid conflicts with the approach lighting and the aircraft approach surface which begins 200' from the runway threshold and extends at a 34H:1V (horizontal:vertical) outward. At 500', there is less than 9' of vertical clearance under that 34:1 approach surface (300' / 34' = 8.8) so a road would not be permitted since the vehicles and street lighting would extend into the approach surface. The road alignment would need to be at least a half mile west of the runway threshold to have sufficient clearance. Additional considerations of a causeway structure in this area may include adverse impacts on the Mendenhall Wetlands State Game Refuge, habitat, and water flow. These factors led to the team suggesting a partial bridge and tunnel structure in this area as a preliminary alternative. Due to the evaluation outlined in the Level 1 Screening Memo, the team determined that the North Airport alternative would not move forward into Level 2 Screening. Please let us know if you would like to discuss this further or have	5/4/2023	M. McCammon	Advisory Committee Email

			additional questions. Thank you, Morgan McCammon			

5/4/2023	Royal T. Hill Jr. Tribal Development Department Central Council of the Tlingit and Haida Indian Tribes of Alaska	Good afternoon, Morgan. So, we can have a road 600 feet from the end of the runway? What team suggested the bridge and tunnel? I mentioned in past meetings that in every city I have landed at there are freeways and roads well under 600 feet from the end of the runway. Can someone please let me know if the fence that is 333 feet from the end of the runway 8 feet tall or 10 feet tall? Would that mean we would have to lower the fence. I really think this option should move forward to level 2. With the right planning and engineering this would be the cheapest option. Thank you.	Good afternoon, Mr. Hill, We appreciate your perspective. Your comments have been noted and included in our study records. In answer to your question about the distance required from the runway, the road alignment would need to be at least a half mile west of the runway threshold to have sufficient clearance. While many other locations have different considerations and environmental factors, this planning study considers conditions in the Juneau and Douglas Island area. Because of reasons stated in the previous email and the Level 1 Screening Memo regarding potential adverse impacts to the airport and the environment and geotechnical challenges, the study team determined that the North Airport alternative would not move forward into Level 2 Screening. Thank you for your continued involvement in the Advisory Committee. Morgan McCammon	5/15/2023	M. McCammon	Advisory Committee Email

5/11/2023	Judith and Rodney Mitchell	Can you please list the specific residential lots that will be impacted by each of the proposals or point me to where I can find that information? Also, can you describe what City rules or regulations apply when impacting or eliminating a residence? Is this "eminent domain"? For instance, will the owners be compensated at assessed value or some other pre-determined amount? What if the residence is not destroyed, but the value of the property is decreased due to road noise, etc.? I am hoping this will also be part of the information presented at the meeting on May 18th. Not sure if the City Manager/lawyer/Assembly needs to answer the above questions, so copying them as well. Thank you,	Good afternoon Ms. Mitchell, Thank you for your questions. At this point in the process, the study team does not know what properties might be impacted and will not likely know with certainty until much later in the process. We have identified general areas where the alternatives interface with Douglas Island and Juneau, but these are not intended to denote the acquisition of properties since we are still in the planning process. The study team is trying to use City and Borough of Juneau (CBJ) owned parcels rather than privately owned property where possible. The best information is located on the website, www.jdnorthcrossing.com. We encourage you to stay involved – when more specific details are known, we will share these with the public through the website and at future public meetings. The right-of-way acquisition process does not begin until after the PEL Study is finalized and after the environmental documentation (commonly referred to as environmental impact analysis) phase of any potential future project is completed. This is because we will not have an approved alternative and certainty on the needed space until that work is completed. The environmental documentation phase has not started yet and if/when it does start, it will likely be about two years in duration. If this project proceeds and an environmental document is completed and if funding is available, the right-of-way acquisition process would then proceed in accordance with federal guidelines. The Department of Transportation and Public Facilities (DOT&PF) complies with policies and provisions outlined in the Uniform Act for real property	5/12/2023	M. McCammon	

			acquisitions for projects. Please see the Statewide Right-of-Way Office website at https://dot.alaska.gov/stwddes/dcsrow/. This site contains many helpful resources for understanding the State of Alaska's obligations in the acquisition process. The brochure titled Acquiring Real Property for Federal/Federal-Aid Programs and Projects (see "Right-of Way Brochures" under "Resources") and Frequently Asked Questions about Right-of-Way are particularly helpful. Please note that the brochure document is intended to be printed and read as a booklet. The City and Borough of Juneau Assembly Public Works and Facilities Committee will hold a listening session on Thursday, May 18 from 5:30 – 7:00 p.m., for constituents to share comments on a potential north crossing (see attached) with their local elected officials. The study team will present a brief status update, including Level 1 Screening, the resulting detailed alternatives, and the next steps. Please let us know if you would like to discuss this or any other issues further. Best regards, Morgan McCammon			

5/12/2023	Linda Baker	Hello, It seems to me the assembly should also be taking written comments regarding the Juneau North Douglas Crossing Listening Session on May 18. By taking only vocal comments in the allotted hour and a half the assembly will not even come close to getting an accurate gauge of what the community wants. It also seems the assembly members have already made up their minds as to what they hope for as they are calling this meeting the Juneau North Douglas Crossing Listening Session. Come on! Let's get a more accurate and fair response from your constituents. You might try reading the responses given to the (PEL) study. I'm sure that will give you a much more accurate view of what Juneauites want than this "listening" session. Sincerely, Linda Baker	Hi Ms. Baker, CBJ has heard feedback from the public that the PEL process does not include an opportunity to give public testimony in the form of oral comments, so Chair Bryson has arranged for this session to have a platform for that. Different people prefer different means of communication, but rest assured written comment is always welcome and considered part of the public record (BoroughAssembly@juneau.gov). The last listening session went for an hour and half (though it was scheduled for longer), so that is where the timing came from. There is no intention to cut people off and we can extend the time to make that clear. The PEL process is run by ADOT, and although CBJ is a partner, it is not a CBJ project. This is another reason why the Assembly wanted to provide an opportunity for the public to communicate directly. I will clarify how to submit written comment and extend the time when issuing a reminder press release later next week. Thank you for your comments and helping this be a fruitful experience for everyone. Best, Katie Koester EPW Dir.	5/12/2023	Katie Koester	CBJ Comment Log

5/12/2023	Jim Dorn	I believe it is important for the public to know why the decision to Not Advance the Mendenhall Peninsula Option and the North Airport Option in the Initial Draft of the Level 1 Screening Results was reversed. It was, I believe, correctly determined Not to Advance this option and now all of a sudden it is still being considered! Why the change? It is important for those of us following this project to know what material information resulted in the change. This kind of unexplained action calls into question the transparency of the entire PEL process. Jim	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
5/12/2023	Jim Dorn	What happened with the Mendenhall Peninsula option???? Why was the decision to Not Advance this alternative reversed? It was, I believe, correctly determined Not to Advance this option and now all of a sudden it is still being considered!!!!! I think it is important to know what material information resulted in the change. I think we all deserve a written explanation about the change of opinion and the explanation should be included in the written record of the PEL, so we all know what happened. This kind of action calls into question the legitimacy of the entire PEL process. I feel like we are getting blindsided by the process and that the process is not transparent.	Good morning, Mr. Dorn, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. The study team presented a draft version of the Level 1 Screening Memo to the advisory committees. The committees provided feedback, shared in the meeting summary posted on the website, www.jdnorthcrossing.com. Based on committee feedback, the study team added the Mendenhall Peninsula alternative back into consideration for further evaluation with Level 2 Screening. This was done to increase transparency regarding how alternatives are evaluated, allow the study team to collect additional data, further evaluate the detailed alternatives moving forward in the process, and share additional details publicly to show why alternatives move forward or not. Please let us know if you have any additional questions or concerns. Best regards,	5/18/2023	M. McCammon	

5/15/2023	Alex Wertheimer, Mendenhall Wetlands Study Group	The Mendenhall Wetlands Study Group would like to express our thanks to Marie Heidemann, Nina Keller, Christy Gentemann, and Steve Noble for taking the time to meet with us last Thursday, May 11. We greatly appreciated the opportunity to learn more about the PEL process and to provide the Project Team with more detail on our concerns and recommended alternatives to minimize the impact of a second crossing on the Mendenhall Wetlands State Game Refuge. As you know, we support the Salmon Creek alternative as the best route to meet the project goals while minimizing environmental impacts and damage to the Refuge. We understand that there is concern about the feasibility of the crossing at Salmon Creek because of the difficulty in providing sufficient bridge height clearance for the commercial barge operation that is just north of the proposed landing area for the bridge on the mainland side of the channel. We discussed whether the barge landing itself could be considered as the site for the bridge connection. Marie rightly pointed out the critical importance of the barge operation for the Juneau Community, making it inappropriate for purchase or imminent domain for the crossing. However, on reflection after the meeting, we came up with a concept that might make use of that site palatable. Would it be possible to build a barge landing site at the location now proposed for the bridge design, and trade that for the existing barge site to be used for the bridge? Now the bridge would be north of the barge landing. Here are advantages: 1. Easier and safer navigation for the barges. 2. Bridge height now needs to only meet whatever the Coast Guard deems necessary for the navigation channel through the refuge.	Good morning, Alex, Thank you for meeting with us last week. We appreciate the time and effort the members of the Mendenhall Wetlands Study Group continue to put into this study. Thank you for sharing your suggestions regarding the Salmon Creek alternative. They will be explored during the Level 2 Screening process. The study team is aware of the environmental considerations for the sensitive nature of the Refuge and appreciates the Group's willingness to provide thoughtful and constructive input to better the outcomes of the process. Best regards, Met with on 5/11/2023	5/18/2023	M. McCammon	Advisory Committee comment

		3. High point of the bridge would be mid-channel. Cost of building a new barge site would be substantial, but this configuration may reduce cost and enhance engineering feasibility of the bridge itself. Can the Project Team take a look at this concept as a potential Plan B at Salmon Creek, and evaluate it for feasibility and cost? It is possible to move a barge site, but the refuge cannot be moved. Thank you for your consideration,				

5/15/2023	Linda Baker	Assembly members, I am unable to attend the Juneau North Douglas Crossing Listening Session on May 18 so I am submitting my comments via this email. One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle schools. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Vanderbilt Hill provides a good alternative plus it would cut many miles off the trip to Eaglecrest. it would also be one of the least damaging to the environment and one of the most economical. Sincerely, Linda Baker	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
5/15/2023	Jill Weitz Government Affairs • Office of the President Central Council Tlingit & Haida Indian Tribes of Alaska	Please keep me updated On opportunities for Tribal consultation, etc. as it relates to PEL process for potential North Douglas crossing. Many thanks!	Good afternoon, Ms. Weitz. Thank you for your interest in the Juneau Douglas North Crossing PEL Study. While formal consultation is not part of the PEL process, the study team would be happy to meet with you to discuss the Central Council's interests and/or answer questions you may have. Royal Hill and Stephanie Banua have been participating on the Stakeholder Advisory Committee. Please feel free to contact us with specific questions or to schedule a meeting, we welcome input from all stakeholders. Best regards, Morgan McCammon	5/18/2023	M. McCammon	

5/16/2023	Gina R. Heffern	Members of the Assembly, I am writing to provide my comments on the Juneau-Douglas Second Crossing following the Level 1 Screening Memo. I firmly oppose the Mendenhall Peninsula option which was originally described in the draft memo as "fatally flawed" from a construction perspective. This option seems as though it would have the largest negative impact on our environment and our viewshed while simultaneously having the smallest positive impact on reducing traffic from the existing Juneau-Douglas crossing and smallest increase in emergency access. As a resident of North Douglas as well as a healthcare worker I am highly concerned that a second crossing improves emergency access and this option does not. A more central option would significantly help with emergency access. Perhaps the fatally flawed Mendenhall Peninsula option was reintroduced into the Level 1 group due to the potential for business development along the spine of the peninsula, however a more central crossing alternative that would meet current critical needs of Juneau residents, would not preclude future development of the spine of Mendenall Peninsula. Additionally, this option is inconsistent with CBJ's Comprehensive Plan due to its impacts on a protected viewshed and does not maintain the visual, cultural, and scenic identity of our community.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		Please consider removing the Mendenhall Peninsula crossing alternative from advancement. Thank you for accepting my comments. Gina Heffern				
5/16/2023	Greg Capito	With the city's population in a steady decline, this project is not necessary or needed. Instead, focus resources on maintenance of our existing highway system which is in serious need of repair.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

5/16/2023	Barb Mecum	Dear CBJ Folks, I appreciate the opportunity for another CBJ Listening Session on May 18, regarding the second crossing. With the Mendenhall Peninsula Alternative oddly back in the mix (already eliminated by the PEL Study back in March, but recently reversed), I am once again submitting my comments here since I am traveling the evening of the 18th and not able to attend in person nor by Zoom. I remain in opposition to the Mendenhall Peninsula Alternative, and 112 friends and neighbors who agree have signed the petition which states: --- Friends of Fritz Cove Petition Attention: Juneau Assembly & Planning Commission, Alaska Department of Transportation & Public Facilities, and DOWL. We, the undersigned, oppose a bridge across Fritz Cove between the end of Mendenhall Peninsula and the vicinity of the North Douglas boat launch ramp. ● It would not reduce congestion during peak periods on the Douglas Island Bridge. ● It would be the longest and most expensive (four times more according to estimates) second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula. ● It would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		Douglas Island Bridge was closed. Douglas residents' work and shopping travel times would be extraordinarily long if Douglas Island Bridge were closed. ● It would have a significant negative impact on Fritz Cove whales, sea lions, and other marine life. ● Hopes for the development of the west side of Douglas Island are doubtful because Juneau's population isn't increasing and many government offices are moving to the Anchorage area. --- I appreciate the opportunity to be added to the record, and your willingness to hear from Juneau folks on this important issue. Sincerely, Barb Mecum				

5/16/2023	Margo Waring	PEL Comments May 16, 2023: Juneau Borough Assembly Thank you for the opportunity to comment on the work of the PEL study. First, to the best of my knowledge, residents on North Douglas have identified a need for faster access to emergency services, especially medical services, and Valley locations. Mendenhall Valley residents have identified recreational access (Eaglecrest, Fish Creek park, 9 Mile Creek, and winter marine mammal viewing at Fritz Cove. Commercial interests have been interested in expanding recreational uses of North Douglas for summer tourists. There are crossing alternative between the airport and downtown that meet most of these goals. But we should note that crossing alternatives beyond the airport actually diminish or negate these goals. For example, a Mendenhall Peninsula crossing would diminish tourist use of kayak tours, diminish opportunities for extremely popular winter marine mammal viewing, and so forth. Please note that these locations, popular with both residents and commercial visitors would be jeopardized or lost for those crossing locations beyond the airport in support of interests that would profit from commercial opportunities based on public investment of scores f millions of dollars to make their aspirations viable. In summary, the Mendenhall Peninsula and other alternatives north of the airport not only fails to meet residents' stated needs but actively harms them in both the short and long term. I also ask the Assembly to consider that Juneau's population is forecast to continue to decline over the next decade. If the forecast proves correct,	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		it means that property tax and other tax burdens will be shared by a stable or declining population and, even factoring out debt retirement, the burden of a second crossing and the subsequent push to implement the expansive West Douglas plan for new CBJ roads, water, sewer, schools, waste disposal, police and fire infrastructure and base costs, run the risk of an insupportable tax burden, even if the docks and associated infrastructure are built with debt and operating costs are paid for by the shipping and cruise industries. I urge you to continue to consider carefully in deciding whether and where a second crossing should be built, weighing not only the extent to which alternatives meet stated residents' goals and willingness to increase tax burdens but also weigh increased "access" against lost access and lost environmental and ecological resources. Margo Waring				
5/17/2023	Allen Shattuck	I strongly support the second crossing and my preferred alternative is the Sunny Point crossing. It provides the most convenience for Juneau citizens and the most expeditious route for emergency services. Thanks	Good morning, Mr. Shattuck, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	5/18/2023	M. McCammon	

			Morgan McCammon			
5/18/2023	Leah Heiman	To the Assembly, I hope my written testimony will bear equal weight to those who come to speak in person. Public speaking is hard for me but I'm taking the time to put my thoughts in writing. I have previously written to the PEL study people about the use of my neighborhood, Mendenhall Peninsula, for a new bridge going to Douglas. I have lived and cared for my home on MenPen Road since 2010 and hope to call it home for many years to come. My family regularly walks the road often picking up trash to take care of the neighborhood. My young son learned to ride his bike on this road and we still regularly bike here. I have had a heavy heart and anxiety every time I'm reminded of the threat of the neighborhood being drastically changed with the building of the bridge here on Mendenhall Peninsula. I see in the recent documents that the Mendenhall Peninsula option supposedly has a "high" level of public support. I wonder if that support is from people who don't live here on the peninsula. I do live here and I am most definitely not in support. I fear the negative impact of several years of construction disruption and noise, widened roads and long-term increased traffic in our currently quiet neighborhood.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		I have heard and seen maps alluding to three ideas of how to build the roads and bridge on Mendenhall Peninsula so I don't know if all of these options are still being considered or not. 1) I have seen maps that show the bridge connecting to the end of Mendenhall Peninsula Road. A north crossing at the end of “MenPen” road would greatly increase traffic on our narrow, no-outlet road. It would likely require widening the road taking property from homeowners along the road putting our houses closer to a wider, busier, faster moving road. No more walks or bike rides along the road. Highway noise rather than neighborhood sounds. This option would also increase traffic on Engineer's Cutoff which is narrow and curvy. When Engineer’s Cutoff is open as a pass-through to Fritz Cove during spring, summer and fall, traffic on Engineer’s Cutoff increases quite a lot and it is more dangerous as more vehicles zip around the curves. I often worry for the pedestrians and bikers I see on the sides of that road. Widening Engineer's Cutoff Road to accommodate more traffic is a lousy option due to the negative impact on homes along Engineer’s Cutoff. 2) I have also heard the idea of connecting to the end of Fritz Cove Road. Although Fritz Cove Road is already wider and might not need as many changes, I’m concerned using that road would increase traffic on Engineer’s Cutoff as well. 3) I have also heard the idea of downing the forest over the top of the peninsula to build a road down the middle of the peninsula. I haven't seen a lot of specific details on how this would connect to Engineer's Cutoff where it crosses that road. But this option has potential to				

		increase traffic on Engineer's Cutoff too and to disrupt both the neighborhoods on the whole peninsula. In addition, I'm guessing this would negatively impact the wildlife populations on the peninsula. Deer and bear are regular backyard visitors in our area. In summary, please consider WHERE the "high levels of support" are coming from with each of the options. If there is an option in which the neighborhoods that are impacted support the changes to their neighborhood, that is very different from developers or others looking for easier access to Eaglecrest for entertainment supporting an idea because they won't be negatively impacted and will only profit. If a bridge is essential, I hope you can find a way to get the road/bridge that's needed for emergency/safety purposes that is fiscally conservative to the community and doesn't negatively impact existing neighborhoods or destroy more of the wild beauty of this area in the name of further development and growth. Don't "pave paradise and put up a parking lot" as the song goes. Thanks for reading, Leah Heiman				

5/18/2023	Hillary Reynolds	To the Honored Assembly Members, Hello! My name is Hillary Reynolds, and I reside with my family on Engineers Cutoff Rd. I wanted to share some insight regarding the proposed bridge from Mendenhall Peninsula to North Douglas. There are a few considerations that you may not be aware of without residing in that area. First of all, you probably realize that the road is narrow. In the winter (when people would be trying to go to Eaglecrest), the road is often reduced to single lane traffic in areas with the snow berms. Without the berms, it is still very narrow in areas and does not have a shoulder which already makes traversing precarious; especially when the Cutoff to Fritz Cove is open. (and that traffic would be comparatively low versus traffic to/from North Douglas!). In order to widen the road, there would be the immense cost of purchasing land from the numerous residentst. Additionally, many of us have our septic drain fields in the front of our houses which means that, unless the city is going to invest in putting everyone in the area on city sewer, then CBJ will have to pay to relocate, re-engineer, and recertify new septic systems. Either way, these added costs will be great, and would up the cost of the project significantly. While I am not a fan of crossing the wetlands in any case, I would think that the Vanderbuilt crossing would make more sense as it has little residential impact and thus, lower associated costs. Thank you for your time and consideration, Hillary Reynolds	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

5/18/2023	Patty Fiorella	While I'm an old coot who prefers no new crossing, I realize change is coming and see the need for safety/emergency purposes, so I am putting my plug in for Vanderbilt. I think Mendenhall Pen would make it too easy for folks that like to dump their junk and I am seeing that with greater frequency already. I would like to see the least amount of wetlands impacted so do not favor either Sunny Point crossing, but it seems silly to build much closer to town and the existing bridge. Vanderbilt seems like a good compromise with an existing intersection already there. I do pity whoever lives nearby, especially on Douglas, whichever connection you make.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
5/18/2023	Bob Varness	I am in favor of the proposed Vanderbilt Hill crossing. I believe it would be the safest and least expensive route with minimal environmental disruption to the wetlands. Best Robert Varness	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
5/18/2023	Corey Baxter	Assembly Members, The Operating Engineers local 302 is in full support of a North Douglas Crossing. We believe that the crossing should be as fair away as possible from the current Juneau Douglas Bridge. The 3 options that make the most sense would be Mendenhall Peninsula, West Sunny point area and Sunny point area. Our members look forward to building this project someday. Thanks Corey Baxter District 8 Representative	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

5/18/2023	Merry Ellefson	Mayor Weldon and CBJ Assembly members, Thanks for your time set aside to listen to the community on a topic which prompts us to look further than a crossing. I'm writing as a citizen (not representing North Douglas Neighborhood Association) I've been thinking about how to study this idea differently and have questions re: the process and our CBJ. 1. If we study a decision-making matrix re: the crossing issue, i.e. when are decisions made, who is ultimately in charge of the footprint of our community? The state, CBJ, feds, all, how? How can the community better understand the next 2-4 years of what you perceive to be the crossing planning process? 2. I'm not so good at visioning 25-50 years ahead; are you? As we transform and continue to take care of the reasons that make Juneau home to many (tangible and intangible) who in the CBJ guides this long term planning, exactly… and if we are doing that, can we better understand this planning process? Coincidentally, I studied urban planning in Norway; it would be pretty helpful to send a delegate to places like Bergen, Trondheim, Lofoten and designated areas in between that do connect communities with bridges and the values or questions that guided these. 3. How do existing sub-area plans (e.g. Lemon Creek) or those yet to happen (North Douglas) fit into the process of discussing the second channing crossing? 4.	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		I've lived on North Douglas (in a trailer for 8 years, now a home): I've learned through the PEL process that even DOT wouldn't design a residential highway like ours anymore. It's not a safe merging of vehicles and pedestrians. We don't even have a nonmotorized route to get our kids or ourselves to town. As you contemplate the crossing and community feedback, I encourage you to study transportation in our hood BEFORE a crossing happens. What is the plan to make North Douglas Highway safer re: for those who live and recreate here as traffic increases, that is, 75000 more tourists headed to EC for the gondola, and an increase in commercial tours at the boat launch, potential Fish Creek upgrades, etc. ? Thank you for considering my questions. Merry Ellefson				
5/19/2023	Breckan Hendricks	Hello Breckan - For the adminstrative record, I'm attaching a copy of the testimony that I prepared for this evening's zoom meeting. Bruce Baker	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

5/21/2023	P Rorick	Hello! Thank you for taking comments on the proposed second crossing from Douglas to Juneau. I do not support a second crossing at this time. I have attended several information sessions and the need for this project has not been proved to me. It is a huge expense and unnecessary. Please use the money for projects that are needed. Thank you, Patricia Rorick Juneau, AK	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

5/21/2023	Bonilyn Parker	Greetings, Unfortunately, I was unable to participate in the listening session due to work commitments. I was very surprised to see in the Juneau Empire yesterday that the majority of the participants support the Salmon creek location. In my opinion, this is too close to the current bridge to be effective or worth the cost. It's going to be a costly investment either way, but it won't be worth the investment if it's in the wrong place. As far as environmental impact on the wetlands goes, we already have a dump and an airport in the wetlands. A bridge wouldn't have anywhere near the negative impacts that those things already have. It makes the most sense from that perspective to keep the bridge closer to those sites, rather than spreading out the impacted areas. As far as traffic mitigation goes, it makes the most sense to connect high traffic areas. The sunny point crossing would connect North Douglas to the most central location on the mainland, close to the industrial area, the airport and the hospital. On the Douglas side, it is much closer to Eaglecrest and the North Douglas Boat launch, which are the only destinations on the north side of the island. From a North Douglas Resident who supports a second crossing, the Sunny Point locations are the obvious choice. Bonilyn Parker	Hello, Ms. Parker. Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	5/22/2023	M. McCammon	

5/22/2023	Jeff Hoover	Hello I'm a Juneau resident of 30 years and I wanted to submit comments on the 2nd crossing bridge. I recently read that the Salmon creek crossing was the preferred option for most of the Juneau residents testifying at the recent CBJ meeting. Although the location may make sense for access to Bartlett hospital, I don't think it's a good alternative for a 2nd bridge. In my opinion, the proposed Salmon Creek location is too close (about 3.3 miles) to the current Juneau bridge and doesn't really had much value to the city or the residents. If CBJ wants to build an expensive 2nd bridge to Douglas Island then it should be closer to the valley where most of the population lives. I've read that some of the 2nd crossing options have concerns about wetlands and that should be a consideration but not the only consideration. In my opinion, the two Sunny Point options are a good compromise for a 2nd crossing: -Still close to Bartlett hospital for emergencies out North Douglas highway -Very close to the Airport for quick access to our primary transportation method out of Juneau -Close to the Valley where it gives better opportunity for most Juneau residents to use the bridge -The access property is owned by CBJ so the overall cost would be constrained My second bridge alternative would be Vanderbilt hill option for similar reasons to the Sunny Point options. I don't like the Mendenhall Peninsula option since it would	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		dramatically change an established residential area. For the bigger picture, I don't think the 2nd crossing is the highest priority project for CBJ funds. I think the city needs to use more funds for improving the dump area (area should be under CBJ control and not private), selling land for residential housing uses and controlling the increasing impacts of cruise ships. All of these areas impact local residents more than a 2nd crossing. I was trying to keep my comments short and I don't have more time to fully expand on all the comments I've made. Thank you for your consideration. Sincerely Jeff Hoover South douglas island resident				

5/22/2023	Christopher Schleck	Good afternoon, Thank you for taking public opinions on the proposed bridge. I do not think another bridge would be worth it. I live on Douglas and have never experienced congestion. The only locations that make some sense to me are the northernmost crossings, but even then, the return on such a large investment seems minimal. The southern 2 or 3 options seem way to close to the current bridge, with not nearly enough commute reduction to make it worthwhile. I appreciate the opportunity to be heard. Thank you for reading this. -Chris Schleck	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log
5/22/2023	Boni Parker	Greetings, Unfortunately, I was unable to participate in the listening session regarding the second crossing due to work commitments but I still wanted to share my opinion and hopefully haven't completely missed my opportunity. I was very surprised to see in the Juneau Empire that the majority of the participants support the Salmon creek location. In my opinion, this is too close to the current bridge to be effective or worth the cost. It's going to be a costly investment either way, but it won't be worth the investment if it's in the wrong place. As far as environmental impact on the wetlands goes, we already have a dump and an airport in the wetlands. A bridge wouldn't have anywhere near the negative impacts that those things already have. It makes the most sense from that perspective to keep the bridge closer to those sites, rather than spreading out the impacted areas. As far as traffic mitigation goes, it makes the most sense to connect high traffic areas. The sunny point crossing would connect North Douglas	Comment to CBJ, which was shared with the PEL Study Team as a curtesy			CBJ Comment Log

		to the most central location on the mainland, close to the industrial area, the airport and the hospital. On the Douglas side, it is much closer to Eaglecrest and the North Douglas Boat launch, which are the only destinations on the north side of the island. From a North Douglas Resident who commutes to Auke Bay for work three times weekly and strongly supports a second crossing, the Sunny Point locations are the obvious choice. Bonilyn Parker				
5/30/2023	Craig E. Dahl Government Affairis Greater Juneau Chamber of Commerce	Morgan, Is there a date in mind for the next meeting as referenced in you May 2nd email? Regards	Hi Craig, Thank you for your continued participation in the PEL study process. We are still working to set a date for the next meeting. We will be in touch with an update in the next few weeks. Best regards, Morgan McCammon	6/5/2023	M. McCammon	Stakeholder Advisory Committee
5/30/2023	Frank Rue, President Sunny Point Neighborhood Association	Dear Morgan, I am writing to ask if you would be willing to meet with members of the Sunny Point Neighborhood Association to go over the Draft PEL Level 2 analysis of the Juneau Second Crossing when you have it ready for public review. Sunny Point is the focus of two of the crossing options that were kept as the PEL moved from Level 1 to Level 2 Analysis, and, as such, there are important issues for all of us on Sunny Point to consider and discuss with you. Please let me know if a meeting will be possible and, if so, when you think DOWL will have its draft Level 2 analysis ready. We will be happy to find a	Good afternoon, Frank, Thank you for contacting us regarding a presentation to the Sunny Point Neighborhood Association. We would be happy to meet with you to discuss Level 2 Screening results once finalized and discussed with the Advisory Committees. Alternatively, we can meet earlier to share PEL study updates, hear comments and concerns, and respond to questions the group may have. Please let us know your preference. Best regards, Morgan McCammon	6/5/2023	M. McCammon	Stakeholder Advisory Committee

		place to meet. Thank you for your consideration. Sincerely,	Project team met with SPNA 6/29/2023			
5/30/2023	Patty Wahto, JNU Airport Manager	Onsight Visit– Meeting with Patty Wahto regarding other DOWL projects- Juneau Second Crossing discussed during the end of our meeting Patty mentioned that funding for the Runway end 26 MALSR is anticipated and she again stated that any Juneau 2nd Crossing should avoid impacting existing and future approaches. This information was provided to DOWL employees in charge of the Juneau Second Crossing project.	On-site meeting	5/30/2023	B. Mello	On-site meeting

5/31/2023	Carole Bookless	I have not seen an artistic interpretation of the different options for the Crossing. How can anyone determine how the different options “Maintain the visual, cultural, and scenic identity of Juneau and Douglas.” without some sort of rendered or photographic interpretation of the different options. Please provide this for the next public consultation meeting. Carole Bookless Douglas, Alaska PS. I am also concerned about the lack of options to get to the far side of Douglas where expansion of development is proposed. Considering that the one road available to get past False Outer Point was closed due to avalanche in recent past, how can we establish an avalanche proof route to that area? Any feasibility study should address this issue. Considering residents have survived this long without a Second Crossing, I assumed that the reason behind spending all this money and making these monumental changes was to facilitate that expansion which includes a wider, safer roadway.	Good afternoon, Ms. Bookless, Thank you for your continued interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. At this point in the PEL study, we are not prepared to create renderings of each alternative. Renderings at this point could provide misleading information, as crossing designs, intersection configurations, and impacts for the alternatives have not yet been fully explored. The intent is to provide these renderings for the recommended alternative(s) as part of the final document. One consideration for alternatives advancing through Level 1 Screening was the likelihood of avalanches in the area of the preliminary alternatives. Those located in an area designated higher risk for avalanches were eliminated. Thank you for bringing the rockfall on North Douglas Highway to our attention. It was not within the area considered for a crossing location. The PEL study is based on the Purpose and Need Statement developed during the early stages of the study. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	6/6/2023	M. McCammon	

5/31/2023	Linnea Osborne	Greetings! I have attended both recent public presentations and am disappointed that the level 1 screening document continues to omit a note that the West Sunny point option (on page 14) is in close proximity to a fire hall thus improving emergency response time for first responders. The Salmon creek option includes a note that it is in close proximity to the hospital and it seems reasonable that a similar note should have been included for the west sunny point option – this was provided in citizen testimony. The omission of this note appears to indicate that your study favors one option over another by omitting a critical safety improvement. This is very disappointing. Thank you for the opportunity to share. Sincerely,	Good afternoon, Ms. Osborne. Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	6/1/2023	M. McCammon	
5/31/2023	greg capito	Stop this nonsense now! Quit chasing federal dollars. Focus instead on maintaining our existing highway system.	Good afternoon, Mr. Capito, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	6/1/2023	M. McCammon	

6/4/2023	Frank Rue	Hi Morgan, Thank you for your offer to meet with the Sunny Point Neighborhood Association. I think it would be good to meet this month and that way you can bring folks up to speed on the PEL process and timing, answer questions, and hear from the folks who live on Sunny Point. I think it will also be good to meet again when you have the draft Level Two Screening results later this summer/fall. If that works for you then let me know when you are available this month and we can work out the logistics of a meeting. Thank you. Sincerely,	Project team met with SPNA 6/29/2023			Advisory Committee Comment
6/6/2023	Cody Hargreaves Sr. Principal Performance Based Navigation (PBN) Engineer Flight Operations – Engineering & Fleet	Hi Nina, Are you able to provide me with an AutoCAD file or similar? All of our analysis of obstructions is done using Lat/Long/MSL Height, so being able to determine location and height would aid us in answering your questions. Regards,	Hi Cody, We put some files together for you. I sent them to you via our file share system. Please let me know if that is what you are looking for or whether you need different information or in a different format. Thank you so much for working with us! Nina	6/14/2023	N. Keller	Advisory Committee Comment

	Technology					

6/7/2023	Cliff Sato | Delta Air Lines - Technical Pilot Airspace and Procedures Fleet Integration | Line Operations	Hi Nina, Thank you for including us. I'm happy to answer these questions along with our Instrument Flight Procedure team here at Delta. Please allow me some time to give you answers with exact numbers to changes in minimums. Is there a specific timeline you'll need these answers? As for the more general answers: 1. How do the proposed bridge locations affect existing and/or proposed RNP approaches? Please explain and rank from most impactful to least impactful. Every approach at Delta and most other commercial carriers is flown in what's called a "constant descent". If you could imagine a line going up from the runway at a defined angle, our aircraft would have to clear obstacles below that imaginary line going up. For this reason, obstacles (in this case the proposed bridge) further from runway end have less of an impact than obstacles closer to the runway. Looking at the proposed locations, this logic would follow. The location with the LEAST impact to airport operations would be the bridge furthest east down the Gastineua Channel a. Regarding proposed RNP approaches would the proposed bridge impact approach minimums or cause the RNP approach to be canceled? We will provide these answers shortly 2. Are there any proposed bridge locations that would affect a missed approach? Please rank most impactful to least impactful. I will provide more detailed answers, but at first look the bridge location west of the runway may	Hi Cliff, Please let me know if you need additional information. Would it help you for the simulation if I send you AutoCAD files? Thanks, Nina	6/16/2023	N. Keller	Advisory Committee Comment

		cause issues with the missed approach for the LDA approach. The missed approach for the LDA to Runway 08 does an immediate right hand turn to avoid going down the channel. This maneuver is necessary when the Juneau Airport Wind System reports turbulence in the channel that is not safe / suitable for operations. 3. Are there any proposed bridge locations that would affect a one-engine-out? Please rank most impactful to least impactful. Both RWY 08 and Runway 26 Engine Out Procedures go west of the airfield. I'll defer to our performance engineering team and @Hill, Christopher W, but for the same reasons in answer 2, the bridge west of the airfield will have the highest impact to our operation, and the bridge furthest to the east in the channel will have the least impact. 4. Would it be possible to determine the maximum height of the bridge at the locations depicted in the graphic that would not impact existing or proposed RNP approaches? If so could you please provide the max heights of each location? Yes – we can do this analysis. 5. There is a potential for the bridge to be lighted, would lighting affect existing or proposed approaches? Do you have any concerns with the bridge being lighted? Would shielding be a good mitigation effort? Lighting on obstacles does not change the obstacle clearance surface that we must fly above. However, if the obstacle is in the "visual segment" of the approach (below our minimums), it would be very important that the obstacle is lit for safety. I'm sure this would be done.				

		Lighting at the airfield and approach lighting has an impact in lowering the visibility for minimums on approaches. 6. We understand that the ATCT will have aircraft hold off Spuhn Island, do any locations that are proposed cause concern for your airline? We will need further information regarding the hold (i.e. altitude / radial / DME / turn direction / leg length). Our RNP RWY 26 includes 2 transitions from the West (CUSHI, SSR) at 7000 feet. Depending on how the hold is defined, this may or may not have an impact on the procedure. For those I've CC'd, please include any corrections or refinements to these answers that you can. We'll be working on the specific details of minimums and obstacle heights for you shortly. Respectfully,				
6/12/2023	Albert Shaw	I was at the worksession on May 18th and would like to add a few more ideas. I am the person who put Eaglecrest together and I try to be sure every effort is made to make it easier to get there. Thus I am in favor of the Airport-Sunny Point route over any other. The information talks of WET LANDS but by the time this project is done lt it will all be DRY LANDS. As you are aware there are already trees over much of this route.	Good afternoon, Mr. Shaw, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	6/12/2023	M. McCammon	

			Morgan McCammon			
6/13/2023	Scott Van Valin Director of Operations Island Air Express	Please provide the latitude/longitudes for the corresponding elevation points in order for us to determine if the locations and heights interfere with our proprietary IFR arrivals and departures. Thank you,	Hi Scott, Did you receive the files I sent via our file share system? The table below was put together to help this effort. It provides the latitudes and longitudes for each alternative. Do you need any additional information? The points depict the end of abutments for signals and the center of the bridges. Center latitudes and longitudes for the Sunny Point alternatives are located where they diverge from each other. Douglas(Abutment) Center(Bridge) Juneau(Abutment) Alternative Latitude Longitude Latitude Longitude Latitude Longitude Mendenhall 58.341228 -134.625350 58.332904 -134.616436 58.341218 -134.625183 Sunny Point West 58.344882 -134.534136 58.350145 -134.533684 58.357245 -134.537806 Sunny Point East 58.344882 -134.534136 58.350145 -134.533684 58.356259 -134.520245 Vanderbilt 58.336688 -134.509284 58.340726 -134.506010 58.344499 -134.502045 Twin Lakes 58.333005 -134.499416 58.335021 -134.495142 58.336958 -134.491005	6/26/2023	N. Keller	

			Salmon Creek 58.323670 -134.479403 58.325005 -134.476924 58.326470 -134.474178 Datum for the above coordinates: NAD83 Stateplane 1, 2011 Thank you, Nina			

6/14/2023	David Chilson Alaska District Airspace and Procedures	Nina, Can you give me the lat/longs associated with each bridge crossing? A point on each shoreline and then the middle of the bridge would be preferred. Also the height in MSL or AGL if you do not have MSL. We should be able to run a simulation to answer your questions. Thank you Additional comment No impact to current procedures however how tall will the cranes be that help construct the bridges and how long might they be in place? Thank you	David, Danielle has listed some elevations on the attached figure with corresponding locations below. There are a few elevation points but she captured the high point of each concept. The final heights will be determined by marine navigability determined by the USCG. We've based our estimates on knowledge of local marine traffic and the anticipated clearance that will be required. Let us know if we can help with anything else, Sean Sean Holland, PE Senior Project Manager DOWL From: Danielle Dance Sent: Tuesday, June 20, 2023 2:12 PM To: Sean Holland Subject: FW: Juneau Douglas North Crossing PEL Studies | Potential Airport Impacts Sean, The table below provides the latitudes and longitudes for each alternative. The points depict the end of abutments for signals and the center of the bridges. Center latitudes and longitudes for the Sunny Point alternatives is located where they diverge from each other. Douglas(Abutment) Center(Bridge) Juneau(Abutment) Alternative Latitude Longitude Latitude Longitude Latitude Longitude	6/20/2023	S. Holland	

			Mendenhall 58.341228 -134.625350 58.332904 -134.616436 58.341218 -134.625183 Sunny Point West 58.344882 -134.534136 58.350145 -134.533684 58.357245 -134.537806 Sunny Point East 58.344882 -134.534136 58.350145 -134.533684 58.356259 -134.520245 Vanderbilt 58.336688 -134.509284 58.340726 -134.506010 58.344499 -134.502045 Twin Lakes 58.333005 -134.499416 58.335021 -134.495142 58.336958 -134.491005 Salmon Creek 58.323670 -134.479403 58.325005 -134.476924 58.326470 -134.474178 Datum for the above coordinates: NAD83 Stateplane 1, 2011 Hopefully that will get them what they need. If they really need DMS they should be able to find an online converter. Let me know if you need anything else. Thanks, Danielle Dance, EIT Transportation Designer DOWL - dowl.com From: Nina Keller Horne Sent: Saturday, June 17, 2023 6:43 PM To: Chilson, David (FAA) Cc: Sean Holland; Danielle Dance; Steven Noble Subject: RE: [EXT] FW: Juneau Douglas North Crossing PEL Studies | Potential Airport Impacts Hi David, I am connecting you with Sean and Danielle, the			

			engineers working on this project. I discussed your questions with Sean and he (or Danielle) will get in touch with you. Thank you again for working with us to be able to provide answers to the question we sent to you. Thanks, Nina			

6/15/2023	Frank Rue	Hi Morgan, I haven't heard back from you, so thought I would remind you of my request for a meeting with you and the Sunny Point Neighborhood Association. Is that still a possibility?? Sincerely, Frank Rue.	Goon morning, Frank. Thank you for reaching out, and I apologize for the delay. The study team is working to coordinate schedules. We should have some dates and times soon. Best regards, Morgan McCammon Additional Response Good afternoon, Frank and Sunny Point Neighbors, Would association members be available to meet next Thursday, June 29, sometime between 1:00 and 3:00 p.m.? The study team has availability and, if needed, the DOT&PF conference room is also available. We look forward to meeting with you. Thank you, Met with SPNA on 6/29/2023	6/16/2023	M. McCammon	Advisory Committee Comment

6/15/2023	Cody Hargreaves Sr. Principal Performance Based Navigation (PBN) Engineer Flight Operations – Engineering & Fleet Technology	Thanks Nina, I'm looking through the AutoCAD files. Are the elevations shown in the PDF file you sent MSL or AGL? Thanks, Additional Comment FAA uses NAVD88, so that matches up with what we use. I just wanted to confirm that the elevations listed in the PDF were not AGL, in which case we would need to add the ground elevation. Thanks,	It's on NAVD88 datum, like the airport. Our engineer is not sure what the relationship is to MSL in Juneau. Do you need something in a different format than it is? Thanks, Nina	6/15/2023	N. Keller	Advisory Committee Comment
6/16/2023	Scott Van Valin Director of Operations Island Air Express	Hello Nina, That could help as long as out procedures team can open AutoCAD files. Go ahead and send it please. Thank you,	Hi Scott, I sent you the AutoCAD files via our file share system. I will be out of the office next week, but I am cc'ing Sean and Danielle, the engineers working on this project, in case you can't open the files and need additional information. Please let us know if that is what you are looking for or whether you need different information or in a different format. Thank you so much for working with us to provide us with the information we need! Nina	6/17/2023	N. Keller	

6/21/2023	Frank Rue Sunny Point Neighborhood Association	Hi Morgan, We will have at least eight Sunny Point residents available to meet on June 29 at 1PM. I am inviting you and the project team to hold the meeting at my home at 7083 Hendrickson Rd. It will give us all a good view of the proposed west Sunny Point Alternative route as we discuss the options and issues. After the meeting, you and anyone else interested, are invited to visit Jim and Jackie Triplett's home to get a very panoramic view from their deck of the east Sunny Point alternative route. People have different levels of understanding of the PEL process, so it would be good if you could summarize what the PEL process is, where you are, what you expect to accomplish, when you hope to have it finalized, and what comes next. It will be important for folks to let you know what they think the issues are surrounding the Sunny Point options and what they feel about other options as well. At this point we are not planning on having a neighborhood association position on the alternatives. Let me know if you can have the meeting at my home on Sunny Point. And thank you for your willingness to meet with us. Sincerely,	Good morning, Frank, The study team would be happy to meet with you and the association members available at your home. Thank you for sharing what information would be most helpful to present to the group. We look forward to meeting with you to hear comments and answer questions. Thank you, Met with SPNA on 6/29/2023	6/22/2023	M. McCammon	Advisory Committee Comment

6/22/2023	David Chilson Alaska District Airspace and Procedures	No impact to current procedures however how tall will the cranes be that help construct the bridges and how long might they be in place?	That's a really tough question at this point David. We don't have any geotechnical information at all in the channel so no idea how many piles, how long or how big which, all of which would dictate the size of the equipment needed and durations. Adding a layer, different contractors have different types of equipment to accomplish the work that may have different heights and may have different durations. Likewise no design on the bridge spans, longer girders would require larger cranes and may require temporary working structures. The height of the crane could be 200'-300' above the bridge deck and it could take a year or more to drive piles and place girders. Sean	6/22/2023	S. Holland	
6/23/2023	Frank Rue Sunny Point Neighborhood Association	Hi Morgan, We look forward to our meeting at 1PM June 29 at my home (7083 Hendrickson Rd). Paper handouts will work best since we don't have a screen for visual presentations. You will be able to park in our driveway. How many of you will be attending? Thanks and see you next Thursday. Call if you have questions. Sincerely,	Hi Frank, We will likely have two to four study team members attending. DOT&PF Project Manager Marie Heidemann and DOWL Assistant Project Manager Nina Keller are both confirmed. The team will plan to bring paper handouts for attendees and can leave extra materials with you. We can also email materials for those unable to attend. Thank you, Met with SPNA on 6/29/2023	6/23/2023	M. McCammon	Advisory Committee Comment

6/23/2023	Cliff Sato | Delta Air Lines - Technical Pilot Airspace and Procedures Fleet Integration | Line Operations	Hi Nina, I apologize for the time it is taking to consider these bridge locations. Because of the possible severity of the outcome, we want to ensure the results we give you are well vetted. Though we can generalize about the locations and height of the bridge, what we don't know is the impact of the construction of the bridge. Specifically, we have to assume that the cranes required to build this bridge will be significantly taller than the bridge itself. I can say that with regards to our performance concerns, we have evaluated that the Mendenhall location would not impact the missed approach for the LDA to RWY 08 or our engine out procedures which avoid going up the channel and are required when certain windshear conditions exist in the channel. For this reason, at this time the Mendenhall location is the only location we can support until we do further analysis on what the potential construction impacts will be on sites east of the runway. Until we receive information on what specifically will be used to build the bridge, we cannot guarantee there will not be an impact which leads to a loss of service to JNU. Thank you for including us in this conversation. When there is information regarding construction specifications, we will be able to give you a more accurate answer to effects of service. Please keep us as part of your team when you have this information. Respectfully,	Thank you, Cliff. The table below was put together to help this effort. It provides the latitudes and longitudes for each alternative. Do you need additional information other than potential construction impacts? The points depict the end of abutments for signals and the center of the bridges. Center latitudes and longitudes for the Sunny Point alternatives are located where they diverge from each other. Douglas(Abutment) Center(Bridge) Juneau(Abutment) Alternative Latitude Longitude Latitude Longitude Latitude Longitude Mendenhall 58.341228 -134.625350 58.332904 -134.616436 58.341218 -134.625183 Sunny Point West 58.344882 -134.534136 58.350145 -134.533684 58.357245 -134.537806 Sunny Point East 58.344882 -134.534136 58.350145 -134.533684 58.356259 -134.520245 Vanderbilt 58.336688 -134.509284 58.340726 -134.506010 58.344499 -134.502045 Twin Lakes 58.333005 -134.499416 58.335021 -134.495142 58.336958 -134.491005 Salmon Creek 58.323670 -134.479403 58.325005 -134.476924 58.326470 -134.474178 Datum for the above coordinates: NAD83 Stateplane 1, 2011 Thanks, Nina	6/26/2023	N. Keller	Advisory Committee Comment

6/26/2023	Sean Kveum Chief Operating Officer Alaska Seaplanes	Hi Nina, I have. I'm waiting to hear back from the engineer who's building some of our new RNP approaches. Are the depicted heights Above Ground Level or Mean Sea Level?? Thanks, Additional comment Hi Nina, After further review with our engineers, It doesn't appear that any of the proposed locations or lighting will have an effect on our RNP procedures.	Hi Sean, It's on NAVD88 datum, like the airport. Our engineer is not sure what the relationship is to MSL in Juneau. Would it help if I send you AutoCAD files? The table below was put together to help this effort. It provides the latitudes and longitudes for each alternative. Please let me know if you need additional information. The points depict the end of abutments for signals and the center of the bridges. Center latitudes and longitudes for the Sunny Point alternatives are located where they diverge from each other. Douglas(Abutment) Center(Bridge) Juneau(Abutment) Alternative Latitude Longitude Latitude Longitude Latitude Longitude Mendenhall 58.341228 -134.625350 58.332904 -134.616436 58.341218 -134.625183 Sunny Point West 58.344882 -134.534136 58.350145 -134.533684 58.357245 -134.537806 Sunny Point East 58.344882 -134.534136 58.350145 -134.533684 58.356259 -134.520245 Vanderbilt 58.336688 -134.509284 58.340726 -134.506010 58.344499 -134.502045 Twin Lakes 58.333005 -134.499416 58.335021 -134.495142 58.336958 -134.491005 Salmon Creek 58.323670 -134.479403 58.325005 -134.476924 58.326470 -134.474178 Datum for the above coordinates: NAD83 Stateplane 1, 2011 Thanks, Nina	6/26/2023	N. Keller	

6/29/2023	Ammie Parker	Hello, I'm concerned about a bridge being placed around my home (near salmon creek). I do not want my views to be degraded, have increased road noise, and increased hazardous traffic. All of these things will rob me of the simple pleasures of quiet scenery that were a deciding factor to purchase my home.	Good afternoon, Ms. Parker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	6/30/2023	M. McCammon	

7/10/2023	Cody Hargreaves Sr. Principal Performance Based Navigation (PBN) Engineer Flight Operations – Engineering & Fleet Technology	Hello Cody, Following a discussion with JNU, the study team would like to gather some information from the different airlines and traffic control to get a better understanding of potential impacts. Attached is a figure showing the different locations of the alternatives and the estimated heights. It would be great if you could respond to the following questions to help us get a better understanding of potential impacts: 1. How do the proposed bridge locations affect existing and/or proposed RNP approaches? Please explain and rank from most impactful to least impactful. Proposed Bridge locations and heights do not affect current RNP approach designs, depending on the exact width and location of the western most side of the bridge (including any lighting added) a. Regarding proposed RNP approaches would the proposed bridge impact approach minimums or cause the RNP approach to be canceled? Proposed Bridge designs do not impact approach minima, however construction could have a serious impact at the Sunny Point location. A crane taller than 140' (70' above proposed bridge deck height) would significantly raise approach minima and a crane taller than 200' (130' above proposed bridge deck height would NA the procedure) Recommend against Sunny Point location due to construction concerns. At the other bridge locations cranes up to 350' have been evaluated with no impacts Ranked order is (preferred first):	Response to request for information sent to N. Keller Horne. No response.			Advisory Committee Comment

		1. Salmon Creek/Twin Lakes/Vanderbilt 2. Mendenhall 3. Sunny Point-East/West 2. Are there any proposed bridge locations that would affect a missed approach? Please rank most impactful to least impactful. No impacts to Rwy 8 missed approach 3. Are there any proposed bridge locations that would affect a one-engine-out? Please rank most impactful to least impactful. At the proposed locations & heights there is no impact to takeoff and payload. Construction cranes above 175' at the Sunny Point location would impact takeoff performance and payload, and effectively close the runway under certain conditions for air carrier ops. 4. Would it be possible to determine the maximum height of the bridge at the locations depicted in the graphic that would not impact existing or proposed RNP approaches? If so could you please provide the max heights of each location? Any obstruction (bridge/light/crane/etc) above 140' in the Sunny Point vicinity would cause impacts (with current information provided). At all other locations, we don't foresee any impacts. 5. There is a potential for the bridge to be lighted, would lighting affect existing or proposed approaches? Do you have any concerns with the bridge being lighted? Would shielding be a good mitigation effort? Shielded/downcast lights with red obstruction light on top per AC 70/7460-1 would be required. 6. We understand that the ATCT will have aircraft				

		hold off Spuhn Island, do any locations that are proposed cause concern for your airline? I think this may be more applicable to GA and/or 135 operators. I don't believe we typically hold in this location. FAA/ATC controls published/un-published holding.				
7/13/2023	Ducks Unlimited	Morgan received a call requesting information on where to submit comments and how long comments would be accepted. Morgan confirmed the project email address and shared that comments would be accepted throughout the PEL study process.	Phone conversation	7/13/2023	M. McCammon	

7/15/2023	Jason Custer, CMA, PMP CBJ Airport Board	Hello. I am newly appointed to the CBJ Airport Board, and am working to develop an understanding of the "Juneau Douglas North Crossing" project. Can you please provide the most recently completed benefit-cost analysis that is serving as the basis for the decision to pursue this project? I reviewed the documents available online, but did not see a BCA. Thank you, and best regards for a good weekend.	Good afternoon, Mr. Custer, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. DOT&PF has chosen the Planning and Environmental Linkages (PEL) process to identify and evaluate a purpose and need for a north crossing connecting Juneau with Douglas Island. As part of this analysis, the PEL process will also develop a cost-benefit analysis. It has not been completed yet and is scheduled for late in 2023 or early 2024. When this document is available, it will be shared on the project website. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Please let us know if you have any further questions. Best regards, Morgan McCammon	7/17/2023	M. McCammon	

7/17/2023	Jason Custer, CMA, PMP CBJ Airport Board	Ms. McCammon. Thank you for clarifying that a benefit-cost analysis is not complete, but will be forthcoming. What standard will be used for its preparation? Will it be the USDOT's "Benefit-Cost Analysis Guidance for Discretionary Grant Programs," or another standard? I am confused by your statement "I have shared your comments with the project team." I have not provided comments. Rather, I have asked to review the BCA, to help me form an opinion of the project. Please confirm that you have not mistaken this request for information as a statement or public comment from me, regarding the project. I have no comment at this time. Thank you.	Mr. Custer, Yes, the USDOT's "Benefit-Cost Analysis Guidance for Discretionary Grant Programs" is the guidance we use. In regards to the communication with the project team. Your question was treated as such and not a comment, but all communications become part of the study records. I wanted to let you know that I shared your question with the study team including the project manager to provide an answer to your question. The study team is accepting questions and comments throughout the study process, please let us know if you have comments or any other questions. We are happy to provide you with information. Thank you for interest, Morgan McCammon	7/18/2023	M. McCammon	

7/24/2023	Cliff Sato | Delta Air Lines - Technical Pilot Airspace and Procedures Fleet Integration | Line Operations	Good morning Nina, Thank you for your patience in our reply. Please let me know if the information below adequately answers your questions. 1. How do the proposed bridge locations affect existing and/or proposed RNP approaches? Please explain and rank from most impactful to least impactful. Delta will not be making changes to the path of our current special RNP procedure due to these bridge locations. This is subject to the exact width and location of the western most side of the bridge (including any lighting added) which has yet to be disclosed. a. Regarding proposed RNP approaches would the proposed bridge impact approach minimums or cause the RNP approach to be canceled? Proposed Bridge designs do not impact approach minima, however construction could have a serious impact at the Sunny Point location. A crane taller than 140' (70' above proposed bridge deck height) would significantly raise approach minima and a crane taller than 200' (130' above proposed bridge deck height would NA the procedure) We do not believe Sunny Point is a viable option due to the certain impacts construction would have on access to the airport. The remaining bridge locations have been evaluated with cranes up to 350' with no impacts. Ranked order is (preferred first): 1. Salmon Creek/Twin Lakes/Vanderbilt 2. Mendenhall 3. Sunny Point-East/West 2. Are there any proposed bridge locations that would affect a missed approach? Please rank	Response to request for information sent to N. Keller Horne. No response.			Advisory Committee Comment

		most impactful to least impactful. We've evaluated there to be no impacts to the missed approach. 3. Are there any proposed bridge locations that would affect a one-engine-out? Please rank most impactful to least impactful. There are no engine out impacts. At the proposed locations & heights there is no impact to takeoff and payload. Construction cranes above 175' at the Sunny Point location would impact takeoff performance and payload, and effectively close the runway under certain conditions for air carrier ops. 4. Would it be possible to determine the maximum height of the bridge at the locations depicted in the graphic that would not impact existing or proposed RNP approaches? If so could you please provide the max heights of each location? Any obstruction (bridge/light/crane/etc) above 140' in the Sunny Point vicinity would cause impacts (with current information provided). At all other locations, we don't foresee any impacts. 5. There is a potential for the bridge to be lighted, would lighting affect existing or proposed approaches? Do you have any concerns with the bridge being lighted? Would shielding be a good mitigation effort? Shielded/downcast lights with red obstruction light on top per AC 70/7460-1 would be required. 6. We understand that the ATCT will have aircraft hold off Spuhn Island, do any locations that are proposed cause concern for your airline? No.			

7/24/2023	Patty Wahto Airport Manager Juneau International Airport	Thank you Cliff. Nina, As noted, this is as it stands with current/existing RNP approaches. As you know, JNU is programmed to extended the RW 26 MALSR approach lighting an additional 1600 ft. to the east pending FFY23 FAA reauthorization language. JNU has permits in-hand for this work. I believe it prudent to assess for the extended MALSR and RNP approaches prior to moving this project forward. Thank you.	Hi Patty, Thanks for reaching out. Our design team is aware of the proposed MALSR's and we consider any alternative that conflicts with the MALSR's to be fatally flawed. We will make sure that our concepts are not in conflict with the MALSR's. Right now we are more than 250' beyond the limits of the proposed MALSR's and will evaluate refinements to the Sunny Point alternatives to increase that distance. The Sunny Point alternatives will also be designed to stay under the future 50/1 approach. Thank you, Nina	7/25/2023	N. Keller	Advisory Committee Comment
7/25/2023	Patty Wahto Airport Manager Juneau International Airport	Thanks, Nina. This will also change the approaches and likely lower mins for AS and DL proprietary procedures. There is also a containment area for protecting these approaches. I can't speak for either airline but that will have to be considered, not just the current conditions for a published public approach/missed/departure.	Response to request for information sent to N. Keller Horne. No response.			Advisory Committee comment

7/31/2023	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Good afternoon Marie, Within ADF&G, I took the coordinator position for our statewide refuges after my predecessor retired in May. My colleagues Tom Schumacher and Roy Churchwell in Juneau are the primary contacts and on-site managers of the Mendenhall Wetlands State Game Refuge, along with Ryan Scott, Director of the Division of Wildlife Conservation. We have been considering the proposals submitted for the Juneau-Douglas Second Crossing relative to impacts on the Mendenhall Wetlands SGR and the activities we support there. I see that the summer 2023 meeting is not scheduled on the web page. What is the current status of the proposals? How can we most effectively weigh into the process? Thank you for any updates. I hope to visit with you and learn more about how we can support the Second Crossing and retain the values of the Mendenhall Wetlands SGR.	Good Morning Sue, Thanks for your patience as I'm returning from leave and catching up. The summer 2023 meeting has been delayed – we hope to schedule committee meetings soon to provide updates. We are currently working through Level 2 Screening of the alternatives shown on the map below. In addition to a status update meeting, there will be meetings scheduled with the Stakeholder and Technical Advisory Committees when we have draft results from Level 2 Screening. This opportunity occurs before we share with the general public and before we develop final recommendations, so it is a great time to weigh in on our analysis and provide feedback. Thanks,	8/7/2023	M. Heidemann	Advisory Committee comment

8/23/2023	Barb Mecum	Hi Morgan, A quick update for you, we are now at 117 signers on our petition and growing. We are concerned the Mendenhall Peninsula location was added back after being removed once. From what we know, that was based on a comment from an Advisory Committee member, Dave Hannah, asking that it be added back into the PEL Study. Since he is the owner of Alaska Concrete Co., it seems to be a conflict of interest. Can you help us understand the basis for adding the Mendenhall Peninsula location back into the study after being eliminated once by the DOWL screening process. Would also appreciate an update on the process timeline since we are all hearing the PEL Study is on hold while DOT conducts more research. Not sure what that means. We understand they also have a new project manager. Thank you,	Good afternoon, Barb, Thank you for sharing the update on the petition. I hope you saw the Summer Newsletter update, attached. The Mendenhall Peninsula alternative was added back into the screening process because the rational for removing it in the draft was deemed insufficient. It was not added back in based on the input of a single individual or entity. The primary reason to screen it out in the draft screening presented at the Advisory Committee meeting was that it initially seemed to fall short of meeting the project purpose and need in regards to emergency response and travel times. After further consideration and Advisory Committee member response to the draft screening, the team made the decision that further evaluation and screening is necessary to make a final determination on this alternative. We look forward to your continued participation in this process. Best regards, Morgan McCammon	8/29/2023	M. McCammon	Advisory Committee comment
8/29/2023	Matt Little Director of DU Public Policy, Western Region	Thank you for the opportunity to comment on the Juneau Douglas North Crossing PEL Study. Please confirm receipt. Sincerely, Matt See letter dated 8/29/2023	Good morning, Matt, Thank you for providing these comments. Morgan McCammon	8/29/2023	M. McCammon	Advisory Committee comment
8/29/2023	Thomas Polatty	I suppose the plan is to put a new mine on Douglas island	Profanity in the email subject. Project Manager requested no response.			

8/30/2023	Linda Baker	One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle schools. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Vanderbilt Hill provides a good alternative plus it would cut many miles off the trip to Eaglecrest. it would also be one of the least damaging to the environment and one of the most economical. Sincerely,	Good morning, Ms. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	8/31/2023	M. McCammon	

8/30/2023	Bruce Baker	August 30, 2023 To: DOWL Group & Alaska DOT&PF For the following reasons, the Mendenhall Peninsula second channel crossing option should be eliminated as soon as possible from further consideration in the PEL screening process: First, it would not significantly reduce congestion during peak traffic periods on the existing bridge. Second, it would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula. Third, it would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if the existing bridge were closed. Douglas Island residents' work, shopping, and school bus travel times would be extraordinarily long if the existing bridge were to become unusable for any length of time. Fourth, it would have a significant negative impact on Fritz Cove whales, sea lions, seals, other marine life, as well as on the biologically productive nearby Fish Creek estuary. Finally, no one has provided the results of a rigorous and economically defensible cost-benefit analysis which clearly demonstrate that a Mendenhall Peninsula crossing is justified to satisfy what some consider to be economic development opportunities on the west side of Douglas Island. Juneau's population is not increasing, many government offices are moving to Southcentral Alaska, and the vision some people have for west side Douglas Island development is more wishful thinking than a defensible reason for an extremely costly Mendenhall Peninsula crossing.	See below			

		The upshot is that the Mendenhall Peninsula alternative should be eliminated as soon as possible from the PEL screening process.				

8/30/2023	Bruce Baker	August 30, 2023 To: DOWL Group & Alaska DOT&PF For the following reasons, the Mendenhall Peninsula second channel crossing option should be eliminated as soon as possible from further consideration in the PEL screening process: First, it would not significantly reduce congestion during peak traffic periods on the existing bridge. Second, it would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula. Third, it would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if the existing bridge were closed. Douglas Island residents' work, shopping, and school bus travel times would be extraordinarily long if the existing bridge were to become unusable for any length of time. Fourth, it would have a significant negative impact on Fritz Cove whales, sea lions, seals, other marine life, as well as on the biologically productive nearby Fish Creek estuary. Finally, no one has provided the results of a rigorous and economically defensible cost-benefit analysis which clearly demonstrate that a Mendenhall Peninsula crossing is justified to satisfy what some consider to be economic development opportunities on the west side of Douglas Island. Juneau's population is not increasing, many government offices are moving to Southcentral Alaska, and the vision some people have for west side Douglas Island development is more wishful thinking than a defensible reason for an extremely costly Mendenhall Peninsula crossing.	See below			

		The upshot is that the Mendenhall Peninsula alternative should be eliminated as soon as possible from the PEL screening process.				

8/30/2023	Bruce Baker	Dowl: The above comments are in response to: North Douglas (Second) Crossing - (STIP ID #: 34346) August 30, 2023 To: DOWL Group & Alaska DOT&PF For the following reasons, the Mendenhall Peninsula second channel crossing option should be eliminated as soon as possible from further consideration in the PEL screening process: First, it would not significantly reduce congestion during peak traffic periods on the existing bridge. Second, it would be the longest and most expensive second crossing alternative, requiring a very costly bridge across Fritz Cove and a new road down the Mendenhall Peninsula. Third, it would not reduce travel time for medical and other first responders, and would create the longest route to the hospital if the existing bridge were closed. Douglas Island residents' work, shopping, and school bus travel times would be extraordinarily long if the existing bridge were to become unusable for any length of time. Fourth, it would have a significant negative impact on Fritz Cove whales, sea lions, seals, other marine life, as well as on the biologically productive nearby Fish Creek estuary. Finally, no one has provided the results of a rigorous and economically defensible cost-benefit analysis which clearly demonstrate that a Mendenhall Peninsula crossing is justified to satisfy what some consider to be economic development opportunities on the west side of Douglas Island. Juneau's population is not increasing, many government offices are moving to Southcentral	Good morning, Mr. Baker, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. We have received the three emails you sent, and I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Additionally, if you have not already done so, please submit your comments on the draft 2024-2027 STIP at https://publicinput.com/stip/. Best regards, Morgan McCammon	8/31/2023	M. McCammon	

		Alaska, and the vision some people have for west side Douglas Island development is more wishful thinking than a defensible reason for an extremely costly Mendenhall Peninsula crossing. The upshot is that the Mendenhall Peninsula alternative should be eliminated as soon as possible from the PEL screening process.				
8/31/2023	Richard Stern	Hi, I reside in North Douglas. We need tunnels, not bridges! With the help of our federal legislators, Alaska needs federal funding to build this infrastructure. SE Alaska needs roadway connection from Juneau to Alaska, bypassing travel through Canada.. This needs to be paid for by the federal govt, and be part	Good morning, Mr. Stern, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	9/5/2023	M. McCammon	

		of the Federal Highway System. America built the Alaska highway through Canada! Thanks for reading	Morgan McCammon			
8/31/2023	Lisa Phu	Hi Steve, Thank you for talking briefly on the phone yesterday morning regarding the "Juneau Douglas North Crossing PEL Study: field study activities" letter we received. We do not consent re: right of entry for DOT&PF staff and contracted professionals to conduct fieldwork on our property, which may include the excavation of one or more soil pits. Thanks again,	Response to phone conversation.			

9/5/2023	Richard Stern	Morgan, Thanks, The purple tunnel is the best, and needs federal funding in the entirety. It need not be a burden on the city or state. The Daklton Hwy is maintained by the state, Its a fortune to maintain. Please place the burden of cost on Federal Hwy funds, No bond! What is being done to fund this? What is the cost to place a tunnel vs a bridge. The BART from Oaklan to SF is set on water, not tunneled, so that is the plan? What Other than being unsightly, what is the damage to marine life & how is this going to affect fisheries. Where does fish & game stand on the issue? What is the environmental impact?	Good morning, Richard, Thank you for the additional comments. This PEL study is funded primarily with federal funds through a partnership between the Alaska Department of Transportation and Public Facilities and the City and Borough of Juneau. Outcomes of the PEL study will include a benefit-cost analysis and funding strategy for a potential future project. On average, tunnels cost significantly more than bridge structures, which is one reason why the tunnel alternative, North Airport, was eliminated. The remaining alternatives are undergoing preliminary engineering to evaluate structure considerations, potential environmental impacts, mitigation strategies, and cost estimates. As Gastineau Channel and Fritz Cove are designated navigable waterways, structures being considered are elevated to approximately the height of the existing Douglas Island bridge or higher. The Alaska Department of Fish and Game has representatives on the Technical Advisory Committee and has been involved since the beginning of the PEL study. They have provided extensive input on the Mendenhall Wetlands State Game Refuge and public access, viewshed considerations, wildlife and fish habitat, and strategies to mitigate potential impacts. The Origin Destination Data Memo and Bridge Volume Forecast Memo are available on the website Documents page: https://www.jdnorthcrossing.com//documents.html. These memos provide information on forecasted traffic volumes for each alternative.	9/12/2023	M. McCammon	

			These forecasts were used as a part of Level 1 Screening and will continue to be used to inform Level 2 Screening. Please let us know if you have any additional comments or questions. Morgan McCammon			

9/7/2023	Ron Somerville, MWSG	Morgan, our group met recently to review the progress to-date on the second crossing. We decided to send the attached letter to express some of our continued concerns and to emphasize major issues still dangling. Hopefully, some of these issues and concerns can be openly discussed and resolved rather than waiting for major conflicts to develop throughout the EIS process. We really feel that there are some win-win opportunities available that do not jeopardize critical wetlands now being the clear favorite of the Dowl team. Thanks for your time. Dear Morgan, I read in your recent newsletter that DOWL has initiated further environmental analysis to inform the findings of the Level 2 PEL study. The studies were to begin August 30 and end this fall. I have also learned that there may be an Advisory team meeting on September 13. As a member of the Mendenhall Wetlands Study Group, I had not been notified of the meeting. If there is a meeting on September 13, please let me know what is on the agenda. These new developments in the PEL Level 2 analysis raise several questions that should be on the agenda for the next meeting. First, was the scope and study design for the four areas of investigation listed in the newsletter reviewed by the Refuge Manager? The study scope and design were not sent to the Mendenhall Wetlands Study Group even though our group	Good morning, Ron, I apologize for you not receiving the invitation to the next Advisory Committee meeting. I have attached the invitation to this email, and I hope you are able to attend. I am consulting with the PEL study's environmental team to review your concerns. Thank you for sharing these. Best regards, Additional response in Level 2 screening	9/8/2023	M. McCammon	Advisory committee comment - Meeting 4

		includes scientists who have either done, or are very familiar with, topics you are planning to investigate. Do you plan to request input from the MW Study Group? And have you incorporated findings of the many existing studies included in the bibliography of the study recommendations we sent to you on January 30, 2023? Second, it appears your studies will be limited to the footprint of the proposed corridors. If so, they are flawed from the start as each crossing will have greater or lesser impacts on habitats, species and human uses beyond the footprint of the crossing structure. The studies of wetland vegetation and function and wildlife surveys should include the entire wetland area. Third, all of the crossing options are perpendicular to the tidal flow that creates and nourishes the habitats and species in the wetlands. And all of the crossings have potential to impact freshwater flows into the wetlands. Hydrology of the wetlands should be a focus of the studies. Impacts of crossing structures on tidal and freshwater flows will be a major concern when evaluating the different alternatives. Fourth, a fall study of upland and migratory bird use of the wetlands is too narrow a time window to give a full understanding of the use of the wetlands by migratory and resident birds. Again, our January 30, 2023 comments give you available studies documenting the year-round bird use of the wetlands. Have you consulted those in the PEL analysis and in designing your upcoming bird studies? Finally, as we suggested in our January 30, 2023				

		recommendations, and our March 17, 2023 comments on the PEL Level One report, none of the alternatives that cross the Mendenhall Wetlands State Game Refuge should include a solid fill option. Given the large and unavoidable impacts of a solid fill structure to the hydrology of the wetlands we recommended that only elevated structures be evaluated in the PEL Level Two analysis. Are you still planning to include solid fill structures as options for crossing the State Game Refuge? These are the primary issues we think need to be discussed at the next session. Sincerely, Ron Somerville Mendenhall Wetlands Study Group				
9/7/2023	Richard Stern	Hi morgan, What is the projected estimated roadway traffic for the bridge. What is the estimated cost of the bridge vs the cost of a tunnel. Where is funding coming from? I read that the Biden admin cancelled all the leases, except for Conoco leaase. This action hurts us all financially	See above, response dated 9/12/2023	9/12/2023	M. McCammon	

9/8/2023	Lisa Phu	Hi Steve, Happy Friday! I understand there will be a Stakeholder meeting on Sept 13 for the Juneau Douglas North Crossing project. Can you please along the time of that meeting and the Zoom link? As a property owner impacted by one of the study alternatives, I would like to stay informed. Thank you,	Hi Lisa, Steve Noble passed along your request for information on the Advisory Committee. Committee members include representatives from a wide variety of organizations: government and regulatory agencies, local government, tribal government and organizations, community groups, environmental organizations, recreation groups, business organizations, and neighborhood associations. These committee meetings are not open to the public; however, the study team will be hosting a public meeting in early 2024. The study team sends periodic newsletters to update community members and share updates on the study progress, latest version attached. I have added you to the project update email list. We also encourage you to visit the website at www.JDNorthCrossing.com for the latest information. The study team welcomes concerns, questions, and comments from everyone throughout the process. Best regards, Additional response Hi Lisa, I apologize for the second email. I wanted to share that I believe you are in the North Douglas Neighborhood Association area, which has an active committee on this PEL study. Please reach out to Ellen Furguson, fernleafgt@yahoo.com, for additional involvement. If I am incorrect on the neighborhood where you live, please see the	9/8/2023	M. McCammon	

			attached list with all the neighborhood associations in the City and Borough of Juneau. Best regards, Morgan McCammon			

9/12/2023	Mike Stanley, Chair NDNA Second Crossing Committee	Morgan, Thank you for the notice regarding the Zoom meeting tomorrow. I plan to attend on behalf of the North Douglas Neighborhood Association, Second Crossing Committee. I will be using the computer at our house, for which my wife, Natalee Rothaus, is the system administrator and whose name appears in Zoom boxes. But it will be me on the line, so I would appreciate it if the minutes of the meeting could list me as a participant, not her. This is a small point, but I want the record to accurately reflect that I attended on behalf of NDNA. Thank you, and please let me know if you have any questions about this. Additional Comment I'll try your suggestion, despite my lack of tech savvy, but will use Chat if I can't make it work. Thanks for responding.	Hi Mike, Thank you for letting us know. When the meeting starts tomorrow, you can change your name on the display for this meeting, so all participants know you are attending as the NDNA representative. This will be one of the slides in the presentation, as we would like everyone to identify themselves and the organization they are representing. If you need assistance, please email me or use the Chat in Zoom. We look forward to talking with you tomorrow. Morgan McCammon	9/12/2023	M. McCammon	Advisory Committee Meeting

9/12/2023	Amy Rodman	Greg, Good morning. Thanks for your time on the phone regarding this Address redacted property and the environmental work for the second Douglas bridge. This property is owned by my parents and I provided their consent via email to Mr. Noble, so my written (email) consent may or may not legally hold water. If and when environmental fieldwork happens, please call so I can direct the scientists to not dig in the leachfield. Let me know if there are any questions. Thanks again for your time. Take care, Amy Subject: North Douglas bridge field study activities, re: Address redacted property Steve, Good evening. I'm responding with consent to the August 18th letter referencing the fieldwork scheduled for various North Douglas properties at potential crossing sites. I'm renting at my parents' property and will consent for them, since they snowbird to southern California for most of the year. I'm requesting a phone call prior to any "Entry upon land" onto my property for walking around and possible digging for scientific data gathering purposes. There has been an uptick of presence of vagrants in Juneau over the last two years, along with property theft occurrences. Since I work from home and am alone on this property, I'd like to	Phone conversation follow up	9/12/2023	G. Lockwood	

		know who is walking around my house and when. Also, I know everyone would prefer digging or evaluation be done away from the property's septic tank and leach field. Please pass on my cell phone number to any DOT or DOWL field staff: Phone number redacted Thanks for your time.				

9/12/2023	Richard Stern	thanks Morgan Who is it that rules out a tunnel? When large cities build tunnels there is no problem getting federal funds, as the Hudson tunnel in NYC to NJ will cost significant amount more than Juneau's plan. This is something Alaska DOT needs to press our federal legislatures to promote, stand behind and not waiver from. We can admit the federal legislators are not of the caliber of Ted Stevens, they need to step it up. Additionally, there needs to be build a Juneau-Skagway road-Haines, opening the SE. Fact is Alaska need not rely on Canada for roadwork. Further a bridge to Elfin Cove & Gustavus needs planning & building. When nations build long bridges ie Tokyo to Narita, or even Ponchartrain bridge the Army Corp of Engineers had no problem spending money or Key West or Chesapeake bridge, Lets not forget the Bid Dig in Boston. Alaska needs its place on the map.	Hi Richard, Your comments have been shared with the project team. Thank you, Morgan McCammon	9/13/2023	M. McCammon	
9/15/2023	Mike Stanley, NDNA	Steve, Further to our phone call, it would assist me to rough out a sketch of the idea I floated at the end of the PEL stakeholder advisory committee meeting on Wednesday, regarding a crossing at the Salmon Creek intersection, if I had an aerial drawing or photograph of the intersection that I could mark up. You said that your staff should be able to locate something along these lines, which they could send. If what they find is larger than can reasonably be made into a pdf and e-mailed, I would be happy to stop by DOWL's office in the valley to pick it up. There's no hurry on my part; I'll be out-of-town Sept. 18-25, and likely would not be	Good afternoon, Mike, Steve requested that I follow up with you regarding an aerial of the intersection for you to mark up. We appreciate your time in developing this idea. Please let me know if you would like to arrange to pick up printed copies. Best regards, Morgan McCammon	9/29/2023	M. McCammon	Advisory committee comment - Meeting 4

		able to work on this until sometime in early October. Thank you, and feel free to call me if you have any questions about this. My mobile # is [redacted].				

9/15/2023	Ron Somerville	Dear Morgan, The Mendenhall Wetlands Study Group requests copies of study plans prepared in order to carry out the wetland and wildlife resource inventories to be conducted for the various North Crossing route alternatives. This request is in relation to the deadline you have set for comments on said plans, which is now three days away, on Monday, September 18th. In order for the MWSG to make substantive comments it is necessary for us to be provided with more detail than the PowerPoint overview given at the recent September 13 meeting. Presumably, when a Technical Advisory Committee was named for this PEL study it was for the purpose of getting advice from people with competence in subject areas pertinent to the North Crossing project proposal. When the decision was made to abandon the original Level 2 screening process schedule in order to conduct environmental surveys it was an excellent opportunity to seek such input. Instead, we are forced into a compressed timeline and as a TAC member have not been provided with the documents we are asked to comment on. For the sake of a fair process and a defensible result to the PEL study we ask that you provide the study plan(s) for our information and review. If the detailed plans cannot be made available immediately, we would request at least a 2 week extension for the comment period. Thank you for your consideration.	Good morning, Ron, Frank and Alex, Thank you for your patience and continued involvement in this process. Please see the attached documents: • Responses to the questions in your letter dated September 6, 2023 • Bird Survey Work Plan • Eelgrass Survey Work Plan • Intertidal Habitat Work Plan • Wetlands Work Plan Please send any comments as soon as possible. We appreciate your input. Morgan McCammon	9/18/2023	M. McCammon	Advisory committee comment - Meeting 4

		On behalf of the Mendenhall Wetlands Study Group -				

9/18/2023	Matt Little Director of DU Public Policy, Western Region	HI Morgan, can you please add DU's Conservation Planning Director Mark Petrie to this email list and fwd him this notice? mpetrie@ducks.org Mark is our lead for scientific review and comments on this project. Thank you,	Hi Matt, I will add him. Thank you, Morgan McCammon Additional Response Good afternoon, Mark, Matt Little requested I forward these documents. Please coordinate Ducks Unlimited comments. Thank you,	9/18/2023	M. McCammon	Advisory Committee
9/18/2023	Patty Wahto Airport Manager Juneau International Airport	Good morning. Could we get a compilation of the comments sent to DOWL/State on the north douglas second crossing alternative sites, please? Including what JNU Airport (I) sent in on-line. Thank you.	Yes Patty We'll get on it. Steve	9/18/2023	S. Noble	Advisory Committee Comment

9/18/2023	Catherine Pohl	Hello Christy, Thanks for the update. We understand the city has contracted for a large aerial photography (and also a lidar) project for the Juneau area but it is not clear when that will be available-- maybe this winter for the photos. Has other recent photography been procured for the project area?	Hi Catherine, I checked with our project team and we aren't aware of any updated LiDar imagery being made available in the near future. The surveys being conducted this fall include: • Migratory Bird Survey and Upland Bird Habitat Mapping • Eelgrass Survey • Intertidal Habitat Mapping • Wetlands Delineation and Functional Assessment The satellite imagery you asked about is ESRI world imagery from 2021. It is publicly available on ArcGIS: https://www.arcgis.com/apps/mapviewer/index.html?layers=10df2279f9684e4a9f6a7f08febac2a9 I hope this helps!	9/18/2023	C. Gentemann	
9/18/2023	Catherine Pohl	Are you saying the project partners aren't using anything other than imagery (you mean aerial photography rather than satellite?) from 2021? What we see from 2021 does not show the lower intertidal and is low resolution, low accuracy. You are saying no one has flown the project area for updated imagery? Additional Comment It is very obvious even just using the NWI web mapper -- on which you can control transparency of NWI overlay over fairly recent imagery-- that the 1979 NWI map is not at all close to accurate for mapping vegetated tidal areas and that re-mapping of the entire wetlands is needed to put impacts in context as well as efficiently map habitats and wetlands directly affected by the crossing sites. Fieldwork is not needed to determine this.	Hi Catherine, Thank you for the comment. We have a team of scientists heading out soon to collect updated intertidal and wetlands mapping. The project team is going to determine the need for any future imagery using this information.	9/18/2023	C. Gentemann	

9/18/2023	Art Dunn	First, the "comment" button on the project home page appears to not work ... This comment is to remind the project team that use of the Mendenhall Wetlands State Game Refuge will require a "4(f)" determination. I will caution the team to read carefully the refuge purpose and note that one of the primary purposes of the refuge is to provide waterfowl hunting opportunity. Any loss of hunting opportunity must be considered and mitigated as prescribed by 49 USC Sec 303 and 23 USC Sec 138. As a long-time waterfowl hunter on the MWSGR, and a person who has an extensive knowledge of Sec. 4(f) determinations, I will be paying special attention to the 4(f) determination for this project.	Good afternoon, Mr. Dunn, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. The “Comment” button on the website open the study email address, JDNorthCrossing@dowl.com, in your email program. Please try refreshing your browser if this button is not working for you. Please let us know if these do not work for you. Best regards, Morgan McCammon	9/19/2023	M. McCammon	
9/18/2023	Scott Jouppi	The wet lands in and around Juneau have been and continue to be destroyed by development. People that bought land on North Douglas knew going n there was a commute to get to and from town. If the current Juneau Douglas bridge needs improvement then fix it.	Good afternoon, Mr. Jouppi, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	9/19/2023	M. McCammon	
9/19/2023	Catherine Pohl	It is very obvious even just using the NWI web mapper -- on which you can control transparency of NWI overlay over fairly recent imagery-- that the 1979 NWI map is not at all close to accurate for mapping vegetated tidal areas and that re-mapping of the entire wetlands is needed to put impacts in context as well as efficiently map habitats and	Hi Catherine, Thank you for this additional comment. I have shared it with the project team to include as part of the project file and comments received.	9/19/2023	C. Gentemann	

		wetlands directly affected by the crossing sites. Fieldwork is not needed to determine this.	Christy Additional response in Level 2 screening			
9/19/2023	Catherine Pohl	OK, if you include your comment that I was responding to, otherwise it sounds like I am saying no fieldwork is needed to assess impacts. I am saying that you don't need fieldwork to know that using a 1979 NWI map is not adequate for planning efficient fieldwork and to know that new imagery and remapping are both needed, even to efficiently plan and conduct fieldwork. Why ground-truth an invalid layer? Additional comment Hi Christy, My partners and I did that mapping. There were only a few tidal units mapped in that project, so not most of the refuge, which is just NWI unless some other project mapped it. Mostly it was freshwater wetlands on city land in "priority areas" designated by the CBJ. Anyway, it is good they are using it now for Mendenhall Peninsula and the bench road and Hendrickson Pt areas, some near Fish, etc., where there is now some better mapping, but the rest would just be NWI I would think. For the refuge, they should be remapping from recent aerials or using the SealTrust 2004 habitat map (though it needs updating too) as a preliminary or updating that. What function and value assessment method are they using. The plan doesn't say. WESPAK SE?	Hi Catherine, I wanted to share with you that the project team let me know the wetlands mapping being used to assess impacts relies more on the 2016 Juneau Wetlands Management Plan mapping than NWI. Christy Additional response in Level 2 screening	9/19/2023	C. Gentemann	

9/19/2023	Sadie McKenry	Hi! I am curious where the proposed new road would originate from for the crossing at Mendenhall Peninsula. Is it next to Wilma Dr? Or perhaps I can just get some directions to the correct overview map with street names on it? Thank you!	Good morning, Ms. McKenry, Thank you for your questions. At this point in the process, the study team is evaluating alternatives, shown on the project website: Probable Limits of Alternatives_2023_0804.pdf (jdnorthcrossing.com). The study team does not know what specific streets/intersections might be impacted and will not likely know with certainty until later in the PEL Study phase when recommended alternatives are identified to move forward into an environmental documentation process. We have identified general areas where the alternatives interface with Douglas Island and Juneau, but these are not intended to denote impacts to specific properties or streets since we are still in the planning process. The study team is trying to use City and Borough of Juneau (CBJ) owned parcels rather than privately owned property where possible. The best information is located on the website, www.jdnorthcrossing.com. We encourage you to stay involved – when more specific details are known, we will share these with the public through the website and at the final public meeting in late winter/early spring 2024. Best regards, Morgan McCammon	9/25/2023	M. McCammon	
9/19/2023	Alex Ditcharo	Any option is better than the engineer cutoff crossing. I feel that way and literally every single person I've spoken to feels that way. - it's too far out of the way - it goes through a quiet neighborhood - it's through deep water - engineers cutoff would have to be completely redone and widened - probably the most expensive option	Good morning, Alex, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	9/26/2023	M. McCammon	

		I can't believe that this option is even up for debate.... lol	Morgan McCammon			
9/20/2023	Winston Smith, Juneau Audubon Society	Morgan: Thank you for the email and attached documents. My response today is on behalf of the Juneau Audubon Society. As an experienced wildlife scientist who conducted field ecological research on birds and other wildlife for over 40 years, I am well aware of variability that exists and occurs seasonally and annually. The proposed fieldwork related to the second crossing are woefully inadequate and will simply provide a single, seasonal observation point without appropriate context or other necessary information regarding variety, abundance, frequency, or duration of use by birds and other wildlife species. At a minimum, fieldwork needs to be conducted throughout the year for multiple years, to be determined in part on the variation observed between the initial two years of the study. SIncerely,	Good morning, Winston, Thank you for providing comments, these have been shared with the study team. Additional response in Level 2 screening	9/25/2023	M. McCammon	Advisory committee comment - Meeting 4

9/20/2023	Patty Wahto Airport Manager Juneau International Airport	So I went through briefly to look for a few comments. Could you share the Delta and Alaska letters with me (I believe they were sent in the past couple months). Also I put our airport comments on the website, as instructed, and do not see that on the summary. These look like they are just the emails, not the comments from the website. My latest comment was sent in May/June timeframe. Thank you.	Good morning, Patty, We have combed through all the comments we have and have not found the letter you reference. One concern I have is where it may have been submitted. You reference an "online portal." The comment button on the study website, www.jdnorthcrossing.com, should open your email program with the study email address, jdnorthcrossing@dowl.com. I apologized that we did not receive the letter and hope you are able to resend it. Please send any further comments directly to this team or to the study email address, which is a distribution list received by the entire study team and includes the team members in this email. Thank you, Morgan McCammon	9/29/2023	M. McCammon	Advisory Committee Comment
9/21/2023	Laurie Craig	Hello, Morgan, I would like to request a copy of the comments submitted by the Juneau International Airport to DOWL about the Second Crossing. Thank you.	See response 9/25/2023			

9/22/2023	Alex Wertheimer, Mendenhall Wetlands Study Group	Dear Morgan: At the September 13, 2023, meeting DOWL held with the Technical Advisory Committee (TAC), we were informed that DOWL had formulated and was implementing Work Plans to evaluate the impacts of the various alternatives in relation to birds, eel grass, intertidal habitat, and wetlands habitat. We were told we had until September 18 to comment on theWork Plans. However, we did not receive copies of the Work Plans until September 18, the stated due date for comments and revisions. This is not an appropriate way to communicate with an Advisory Committee that is supposed to provide constructive input to the analysis and evaluation of second crossing options. As a result, the Mendenhall Wetlands Study Group (MWSG) is relegated to being critics of the plans rather than contributing to improved methodology and data collection. It is obviously too late for detailed comments of field methodology. However, despite the very limited time you have provided, the MWSG has read through the Work Plans and we have some general comments on the on-going field work. Study area(s): All of the studies contained in the work plans focus on only the footprint of the various alternatives and a small additional buffer either side of the alignments. This is undoubtedly a cost saving measure, but has the substantial flaw of ignoring the rest of the wetland area in which the alternatives sit and makes it impossible to evaluate route alternatives in the context of surrounding ecological values. A single narrow transect is likely to underestimate the values of a larger area - that's why sampling procedures require multiple transects or other sampling schemes to accurately depict the values exhibited by a larger piece of	Good morning, Alex, Matt, Ron, and Frank, Thank you for providing comments, these have been shared with the study team. Additional response in Level 2 screening	9/25/2023	M. McCammon	Advisory committee comment - Meeting 4

habitat. All of the alternatives are perpendicular to the tidal flow that creates and nourishes the habitats and species in the wetlands, and all of the crossings have potential to impact freshwater flows into the wetlands. Hydrology of the wetlands should be a focus of the studies, not an issue to be considered later. Impacts of crossing structures on tidal and freshwater flows will be a major concern when evaluating the different alternatives, and when evaluating the construction options for each particular alternative.

Timing: Evidence shows that most southward migration of birds through the Mendenhall Wetlands have occurred by mid-September, so a one-time survey late in the month has little value for depicting use of the Mendenhall Wetlands by bird species. Such studies should be conducted across one or more entire years, and should encompass the entire Mendenhall Wetlands rather than only individual route alternative transects.

References: It is essential that PEL's studies incorporate all available knowledge of the study areas, and that the most recent information be included. Two critical references in regard to bird use of the refuge that are not cited are:

Cain, S., J. Hodges, and E. Robinson-Wilson. 1988. Bird Use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, AK. 72 pp.
Armstrong, R.H., R.L. Carstensen and M.F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands, April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. 74 pp.

		The MWSG previously submitted these and a number of other references to the PEL process on January 30, so they should be readily available to your contractors. We look forward to seeing the results of the field work. We ask that the TAC be provided draft copies of the Work Plan reports with sufficient time to meaningfully comment on the analysis and interpretation. On behalf of the MWSG-				

9/24/2023	Laurie Craig	I'm following up on my request from Friday asking for a copy of the comments submitted to you by the Juneau International Airport on the proposed Second Crossing. I would appreciate receiving this document by noon Monday so I can share it with fellow members of the Mendenhall Wetlands State Game Refuge Citizens' Advisory Committee. The committee meets at 2:30pm on Monday, September 25. The Second Crossing has been a topic of interest to our group. We advise the Department of Fish and Game on Refuge issues. Best regards,	Good afternoon, Laurie, We will not be able to collect and share all comments submitted by the airport before your meeting today. We will share these with you as soon as possible. Thank you, Morgan McCammon	9/25/2023	M. McCammon	

9/26/2023	Julian Hausman	I am strongly opposed to the Mendenhall Peninsula alternative crossing of the Juneau Douglas North Crossing Bridge Proposals. Please don't build this. My wife and I purchased our home in 2022 to raise our family in the quiet serene Mendenhall peninsula and we plan to stay here for decades. To say this quite literally, I do not want a new highway and 100ft high bridge in my backyard. As a property owner on the tip of the Mendenhall peninsula within the study area boundaries, I am also quite concerned with the substantial increase in traffic (and construction) noise that such a crossing would introduce. The Mendenhall Peninsula crossing route would also do extreme harm to a large protected area of forest and its animal inhabitants, a place that I walk every day with my family. In addition to the wetlands impact study, have any of the environmental impact evaluations considered the marine life in Fritz Cove? The bridge would cut directly through habitats and migration routes used by salmon, humpback whales, orca, porpoise, seal, otter, crab, and many more. These animals are all an important part of the Juneau cultural identity, and they hang around around the Mendenhall peninsula and Fritz Cove throughout the year. Directly commenting on the negatives of this proposal from the Level 1 Screening Memo: • Significant earthworks will be required (cuts/fills exceeding 60 feet in height) to achieve a design standard for the profile grade of six percent. This has the potential for adverse impacts on residential roads and neighborhoods, and adverse	Good afternoon, Julian, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. The Origin Destination Data Memo and Bridge Volume Forecast Memo are available on the website Documents page: https://www.jdnorthcrossing.com//documents.html. These memos provide information on forecasted traffic volumes for each alternative. These forecasts were used as a part of Level 1 Screening and will continue to be used to inform Level 2 Screening. Additionally, Baseline Data Maps and Technical Memoranda can be found on the Documents page of the website. We expect the third and final open house to occur in late winter or early spring 2024. We will share information on the date, time, and location when determined. Please let us know if you have any additional comments or questions. Best regards, Morgan McCammon	9/27/2023	M. McCammon	

		visual impacts associated with the construction of a road at the top or, or part-way up a ridge. I agree that this would adversely impact my neighborhood and its visual aesthetics. • Under the likely best fit of the road alignment that matches the terrain of the peninsula, the bridge would need to be at least 100 feet high (in the best-case scenario) as would be required to meet clearance requirements, depth of the structural section, and the most likely profile grades of the highway. Although this is feasible from an engineering standpoint, additional analysis is needed to determine if it is reasonable. A bridge 100ft high or taller would SEVERELY alter the visual, cultural, and scenic identity of Juneau. The existing Juneau Douglas bridge is 66ft tall, so this new bridge would be at least 50% taller. Yuck. • The resulting structure would be nearly double the length of the next longest structure being evaluated, significantly increasing cost. Yes please keep the cost of this project as low as possible. And please don't destroy the Mendenhall peninsula forest! If such a crossing from Mendenhall peninsula to North Douglas were to be established, it would not greatly improve the use of non-motorized vehicles nor reduce energy consuming transportation. This crossing is often exposed to intense wind and weather that would make it challenging to walk or bike throughout the year. Also the two areas that are connected by this crossing are not areas dense with businesses or residences, so it is likely there will still be a need for energy consuming transportation to utilize this route. Can you quantify the congestion problem during peak hours on the JD Bridge that demands a fix?				

		I'm not convinced the problem is worth spending millions of dollars and years of construction to fix. As a regular user, I find that the congestion across the existing JD bridge during peak hours is trivial. Please keep me informed about when the next Open House discussion is scheduled as I would like to bring my objections forward. Thanks for your consideration,				

9/27/2023	Myrna Gardner, GWCCM, ICCM-F Xíeishxí -- Yéil -- Taakw.aaneidí Hi't Procurement Officer Central Council Tlingit and Haida Indian Tribes of Alaska	I believe it is imperative that we build a crossing. The vanderbuilt road access would be best. Far enough away from the airport, but close to Fish Creek for the access to housing and Eagle Crest.	Good morning, Ms. Gardner, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards, Morgan McCammon	9/28/2023	M. McCammon	
9/29/2023	Mike Stanley, NDNA	Morgan, Thank you for responding to my request. I am able to open the attachments without any problem but haven't been able to print them out in a way that is useful for my purpose. I tried manipulating the image in several ways in Acrobat to see if I could make it work but without success. So I'd like to avail myself of your offer to pick up printed copies. I can swing by the DOWL office early next week, if that works for you folks.	Hi Mike, Yes, you can go by the Juneau Office, 9085 Glacier Highway, Suite 102, Juneau, AK 99801, between the hours of 8:00 am and 5:00 pm. Would 11 by 17 inches be large enough? Marella, front desk staff, will have these available for you. Thanks, Morgan McCammon	9/29/2023	M. McCammon	Advisory committee comment - Meeting 4

9/29/2023	Laurie Craig	Good morning, Morgan, I'm asking again for Second Crossing comments filed with you by Juneau International Airport. On Monday you replied that there were numerous submissions from JNU and that you would not be able to provide copies in time for our wetland citizens' advisory committee meeting that afternoon. Perhaps I can make my request more specific by asking for the airport's detailed submission from this summer. It is insufficient to summarize the airport manager's comments as "some concerns." We know airport safety is crucial to any wetlands crossing due to the potential of a structure to interrupt flight operations at the airport. Please let me know if it is necessary to elevate my request to DOT. I prefer to deal directly with DOWL in your role as PEL reviewers. A full EIS is likely and my requests will continue through that process as well. However, sooner is better and providing copies is your responsibility now, as I understand it. Best regards,	Hi Laurie, I wanted to update you on the progress of your request. We are working with the airport manager to confirm that we have all of the airports comments. Greg Lockwood, the DOT&PF Project Manager, is aware of this process. We will share these once confirmed. Thank you for following up. Morgan McCammon	9/29/2023	M. McCammon	

10/2/2023	David Chilson Alaska District Airspace and Procedures	Do you have an update? Thank you	Hi David, There is not much new to report since July as the project has been awaiting completion of the Statewide Transportation Improvement Program to make funding available for the remaining tasks to proceed. With what funding has been available, we have completed some additional environmental fieldwork for each of the alternatives (e.g. wetlands, inter-tidal, bird surveys) to provide additional data to support the alternative screening process. The alternatives you reviewed in July are all still being considered, and the current outlook (pending funding availability) is that the Level 2 screening will be completed sometime in the first quarter of 2024. The information provided by you previously is being used to refine the alternatives to determine if there are potential solutions to some of the issues. All stakeholder feedback will be considered in the Level 2 screening process. Alternative(s) that progress beyond the Level 2 screening process will be the alternative(s) that are recommended in the Planning and Environmental Linkages Study to be included in future NEPA efforts. If you have additional questions, please let me or Greg Lockwood PE (DOT&PF's new project manager for this project) know. Thanks Steve	10/2/2023	S. Noble	

10/4/2023	Mike Stanley, NDNA	Morgan, I picked up the copies Monday afternoon and they will work for my purpose. Thank you for assisting with my request. Once I have marked up versions I'll e-mail them to you and Steve. Mike	Good morning, Mike, Thank you for letting us know. We look forward to receiving your marked up versions. Morgan McCammon	10/4/2023	M. McCammon	Advisory Committee Comment
10/4/2023	Mike Stanley	Dear Morgan and Steve, Attached are a couple of schematics for the idea I mentioned about an overpass that would cross above Egan Drive from the hospital entrance, then across the DOT parking lot, and then across Gastineau Channel. (Where the crossing would land on the island side is a separate issue.) One is from a copy of the aerial photo you provided; the other is a photo I took at ground level at the turn-off into the Salmon Creek powerhouse. These are very rough but I hope you get the concept. The idea occurred to me as I was thinking about your comments regarding the difficulty of tying a crossing directly into the Salmon Creek intersection. An overpass that started at the elevation of the hospital entrance road, and then went directly across, would seem to avoid many of the problems you identified: the crossing would be high enough to avoid interfering with barge traffic; overpass abutments could be located near the hospital drive entrance and in the DOT parking lot, which I presume would avoid the need for taking any private property or buildings; and such a crossing would be entirely outside the Mendenhall Wetlands State Game Refuge and the habitat at the mouth of Salmon Creek. And I see other possible advantages: much better access to the hospital from Egan northbound, directly up an exit ramp, and a straight shot for traffic coming from North	Michael Thanks so much for giving us your ideas at this intersection. I appreciate it. We will compare it to some of the ideas that our team has been coming up with him see if it spurs any new concepts. Steve	10/4/2023	S. Noble	Advisory committee comment - Meeting 4

		Douglas directly into the hospital, without having to negotiate the intersection light and multiple turns. The trickiest parts of this idea are the on and off ramps. An exit ramp southbound on Egan up to the overpass, just past the light, could compromise the merge lane bearing south out of Channel Drive; an entrance ramp down from the hospital entrance back to Egan would have to tie in somehow, while still leaving a way to turn right off Egan at the light; and a ramp down from the overpass for traffic coming south from North Douglas would also have to tie back into Egan. I assume, however, that traffic/highway engineers (which I am definitely not!) could wrestle with these issues. Whether this concept has any merit I will leave to you and DOT to judge, but I at least wanted to convey the idea for your review. One caveat: although I represent North Douglas Neighborhood Association on the PEL stakeholder advisory committee, this idea is mine alone and should not be considered the position of our Second Crossing Committee. Thank you. See attachment dated 10/4/2023				
10/11/2023	Mark Rorick	My Email has changed from vivalanuit@gci.net to akabadger66@icloud.com. The North Douglas comments are the same. See below Attachment unable to open	Good morning, Mr. Rorick, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have updated your contact information in the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Best regards,	10/12/2023	M. McCammon	

			Morgan McCammon			
10/12/2023	Teri Tibbett (BBNA & Douglas Advisory Board)	Hi there…Letting you know that I'm closing this email account. Please delete and replace with [redacted]. Thank you!	Good morning, Teri, Thank you for letting us know, I have updated your contact information. Best regards, Morgan McCammon	10/12/2023	M. McCammon	Advisory committee email
10/16/2023	Christopher Hoon Manager of Government Affairs – Pacific Flyway	Hello Morgan, My name is Christopher Hoon, I am the Manager of Government Affairs on The Pacific Flyway for Delta Waterfowl. I was wondering if I could please be added to the email updates around the Juneau Douglas Bridge North Crossing. This is something our team is keeping an eye on. Please let me know. Thanks,	Good morning, Chris, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I will add you to the project contact list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study and email any comments to JDNorthCrossing@dowl.com. Best regards, Morgan McCammon	10/16/2023	M. McCammon	
10/17/2023	Patty Wahto, JNU Airport Manager	Onsight Visit- Meeting with Patty Wahto regarding other DOWL projects- Juneau Second Crossing discussed during the end of our meeting Patty was concerned that the letters and outreach that the Airport had completed did not show up in the written record. She asked if I would reach out	`On site meeting	10/17/2023	B. Mello	On-site meeting

		to DOWL staff to research locating the outreach that the Airport had completed. This request was sent to DOWL employees in charge of the Juneau Second Crossing project.				
11/13/2023	STIP Comment Period shared as a curtesy	STIP ID 34146: I strongly oppose the Juneau Douglas North Crossing and any federal funding being spent to further the project. The crossing is not needed (Juneau population is decreasing), it will be environmentally harmful and degrading, it will be an eyesore to the gorgeous views out North Douglas, and federal funding is seriously needed elsewhere in Juneau and the State of Alaska (e.g. maintenance of the current JD bridge, the ferry system, better roads/connectiveness in rural communities). Negative public input on this project has been disregarded and ignored so far. I am hopeful our State DOT will see how useless this project is and consider spending our Federal funds elsewhere where they can be better utilized; DOT should know as they manage such things statewide.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	Judith T Brakel STIP Comment Period shared as a curtesy	STIP 34346 constructing a second Juneau - Douglas crossing. I oppose this project because it would have a destructive effect on the Mendenhall Wetlands State Game Refuge, the necessary habitat for large numbers of birds and other wildlife in the vicinity of Juneau and Douglas. Whenever possible we should encroach less on wildlife habitat. It is also a beautiful area that enriches the human lives inhabiting the Juneau-Douglas area.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	North Douglas (Second) Crossing - (STIP ID #: 34346) This is a terrible idea. It is being touted as a benefit for residents of north Douglas, but is only a thinly veiled effort to benefit developers at the expense of north Douglas residents. It would have disastrous consequences for the Mendenhall wetlands, and would terribly overburden the existing Douglas highway. Long term plans outline a bench road running parallel to the Douglas highway and building that road is an absolute necessity PRIOR to opening access for additional development with a second crossing. The associated increase in trafffic, congestion, and unsafe conditions for those who live along the highway is unacceptable and the community has come out with overwhelming opposition to the second crossing at every opportunity to comment. Not an appropriate project.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	Evan Deisen STIP Comment Period shared as a curtesy	Please consider removing STIP ID #: 34346 (North Douglas Second Crossing) from all future plans. This project would bisect the Mendenhall Wetlands State Game Refuge and further reduce and fragment this globally designated Important Bird Area which provides critical habitat for hundreds of species of resident and migratory birds and as well as key spawning, rearing, and feeding habitat for all five species of the salmon our community depends on. The southeast Alaska Land Trust is against this proposal and I strongly agree with them. So many Juneau residents choose to live here because of the amazing wilderness we get to enjoy and the intact wilderness is a huge reason why we get so many tourists here as well and this project would	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

		cause significant and irreversible damage to the wild populations of birds and salmon. This project would also be very expensive and the burden to taxpayers in combination with the negative environmental impact makes this project a terrible idea.				
11/13/2023	STIP Comment Period shared as a curtesy	I strongly oppose the North Douglas crossing (STIP ID #: 34346). This crossing would bisect the Mendenhall Wetlands State Game Refuge and further deplete this unique region, which is a globally recognized Important Bird Area and serves as absolutely critical habitat for hundreds of species of local and migratory birds. This is also essential spawning habitat for all five species of salmon. Please don't invest in this massive project just to save people fifteen minutes of driving time to Eaglecrest.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	#34346 We do not need another crossing between Juneau and Douglas especially since it crosses sensitive bird and other wildlife habitat. Remove that project from STIP 2024.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	34346 North douglas crossing I do not agree that there is an economic need to have a second crossing between juneau and douglas island. The proposed location would severely endanger the Mendenhall Wetland Refuge ecosystem. All citizens would ultimately pay for irrevocable damage to the Wetlands. Those who might economically benefit in the long term are few and likely not residents in the community it will directly negatively impact.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	Stip #34346 We do not need a second crossing to Douglas Island. I have been a Douglas Island resident for over 30 years and see no economic or other reason for a second crossing. The major reason people want it is to save a little time getting to Eaglecrest, but this is not a good enough reason to further damage the wetlands. This crossing would do far more harm than good cutting up the Mendenhall wetlands which have already been whittled down time and again with little to no thought of the cumulative effects of all this development on this important wetland area. No second crossing! Spend money on maintenance of the current bridge.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	STIP ID #: 34346 I have resided on North Douglas for 45 years. There has been no instance where life and safety have been challenged by the existence of one crossing point between the mainland and the island. If the effort is to create opportunities for community expansion to the West side of Douglas Island the only viable option for the crossing is the Mendenhall Peninsula route or Northern most crossing option. It avoids the Mendenhall Game Refuge, impacts few homeowner and provides the most direct access point between the Valley commercial area and potential development on the West side of the island.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	Linda Baker STIP Comment Period shared as a curtesy	One of the main reasons for a 2nd crossing is in case the main bridge is inoperative for a period of time. Many of the people who work in Juneau live in Douglas plus kids who attend high and middle schools. It makes no sense to have their alternative access as far away as the Mendenhall Peninsula. A second crossing at Vanderbilt Hill provides a good alternative plus it would cut many miles off the trip to Eaglecrest. it would also be one of the least damaging to the environment and one of the most economical.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	John Hyde STIP Comment Period shared as a curtesy	No way. If someone is too lazy to drive another 10 miles to north Douglass then they shouldn't be driving at all. This is just another politically motivated construction project that will benefit only a very few. It will also cross the only flight path to and from the airport which could prove life threatening in the advent of an accident. It would also destroy the integrity of the largest wetlands in the Juneau area. Just another waste of dollars that could go to much more needed projects elsewhere. NO WAY.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	Nancy Waterman STIP Comment Period shared as a curtesy	34146 Missing from the PEL, ahead of crossing location selection and moving on to the DOT process, is any planning for infrastructure improvements on Douglas Island. Often we hear suggestions of a 'bench road' Please wait for definition of this road....and perhaps other Douglas improvements before moving forward with DOT funding. Thank you.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	34146 - 2nd crossing from the Juneau mainland to Douglas Island. While a 2nd crossing has safety benefits, there will be unavoidable deterioration of a valuable wetland that is important for migratory birds, for fish, and for local waterfowl hunters if this bridge is not designed to avoid those impacts. That is likely an impossible task.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	STIP# 34346 Second Crossing This project is completely unnecessary. DOT's stated main reason for this project is to reduce congestion on the Juneau Douglas Bridge. My own research observing traffic on a weekday morning showed that there were no cars on the bridge that didn't make it through the Egan & 10th traffic light in more than one light cycle - so there is no congestion problem on the bridge. Citizens paranoid that a vessel will hit and disable the bridge, rendering emergency medical care inaccessible? - for a fraction of the cost of a new bridge, DOT should construct a small ferry dock in the vicinity of the downtown harbors and install a small ferry (like the Ketchikan airport ferry), for use if an accident ever befalls the Juneau Douglas bridge. There is absolutely no need for a second crossing of the channel - citizens voted overwhelmingly against this a number of years ago. DOT: stop trying to find stupid projects to waste money on!!!	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation. or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	I oppose fragmenting the Mendenhall Wetlands habitat to build the second crossing at North Douglas, as 5 species of salmon, & hundreds of bird species would be affected. In addition, I don't want to encourage further development of the cruise ship industry, which is already OVERDEVELOPED to an unhealthy level, for our community. If anything, we need to cut it back some. Thank you for this opportunity for my public comment.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	Project # 34146 Where is the demand for this project? Please show justification.	STIP Comment Period shared as a curtesy		DOT&PF	STIP Comment Period
11/13/2023	Jason Keedy STIP Comment Period shared as a curtesy	No more money towards this project, We don't need a second crossing. Spend the money on roads, lighting pedestrian crosswalks, etc... but absolutely no more towards something we do not need. Congestion on Douglas Bridge is only 2 times a day for a brief moment. Also the population is trending downward.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	I am in support of the Juneau Douglas North Crossing Project. A bridge on North Douglas will ease commutes for many residents, reduce traffic in many areas, and provide a safer road way for all on Douglas Island and in Downtown Juneau. The sooner the better from my perspective.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	I fully support adding an additional bridge on North Douglas. Adding an additional crossing will create easier access to Eaglecrest for winter sports and the summer gondola once it is operational. It will also increase the response time for emergency personnel to reach North Douglas during emergencies. Additionally, it will alleviate traffic backups and congestion during times of large events at Sandy Beach or when construction is happening on the other bridge.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	Adding a north Douglas crossing would increase the safety of Douglas residents by providing an alternative means of egress and ingress. When accidents or construction impairs traffic across what is now the only crossing, emergency services cannot be expeditiously reached by residents that may be in need. If anything - however unlikely- ever impaired use of the bridge for more than a short time frame, residents would be stranded without options to reach home or town.	We understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	The North Douglas Secoond Crossing (ID #34146) could be vitally important in connecting residents of Douglas Island to important facilities should either the existing bridge or the bottleneck section of the expressway be closed for some reason. But to do that effectively it needs to go from the part of Douglas where most people actually live to the closest point on the mainland that has duplicate routes to both the hospital and the airport. To be clear, that would be Salmon Creek. A crossing located further out, especially beyond the airport as the map suggests, would truly be a bridge to nowhere. It would benefit no-one other than the workers who build it and the shady group of speculators who have development plans for North Douglas. Juneauites do not need or want a highway across the wetlands.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	STIP Comment Period shared as a curtesy	YES, fund: AMHS (ships, facilities, staff, & services), Southeast PEOPLE projects like Douglas 2nd Crossing, Ketchikan Airport access, and ALCAN Highway improvements.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

11/13/2023	STIP Comment Period shared as a curtesy	The only other new construction project identified for Juneau in the STIP is ID 34146, the Juneau Douglas second crossing. This should not be a high priority compared to other basic road and marine highway needs for Juneau and Southeast Alaska in my view. However, if this project goes forward, it should be routed outside the boundaries of the Mendenhall Wetlands State Game Refuge. The Refuge's wildlife, fisheries, ecological, recreational, hydrologic and scenic values are outstanding and well-documented, and too valuable and irreplaceable to build a road through the heart of it. Off-refuge alternatives must be included in the full environmental review process.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period
11/13/2023	Mary Glaves STIP Comment Period shared as a curtesy	Please FUND the ferries throughout Southeast Alaska, and please DO NOT pour 10c of millions of dollars into a second crossing from Juneau to North Douglas. There is no need! What will come of this is destruction to the wetlands, fish and other aquatic organism habitat INCLUDING anadromous fish. DO use these funds instead to improve AMHS. Southeast Alaska needs better ferries for our residents. And, this would help independent tourism grow and balance/offer a better alternative other than cruise ships, to see our beautiful region. Studies have shown that independent tourism brings in more money than cruise ship tourism, that actually stays in Alaska and benefits Alaskans. I urge you to be a representative of your state and local populations and utilize this funding to address the needs of the state, and not small wants, that have little to know benefit for the majority of our people.	As for the Juneau Dougls North Crossing, we understand this is a project for which there is both support and concern. The City and Borough of Juneau has identified this project as a top priority, included in the 2013 Comprehensive Plan, 2015 Juneau Economic Development Plan, and numerous other plans and resolutions. A Planning and Environmental Linkages Study is currently underway to help inform project design and identify a crossing location that supports transportation needs while minimizing impacts. The Project Design will include a full National Environmental Policy Act (NEPA) review including additional stakeholder engagement and preferred alternative or no action recommendation.		DOT&PF	STIP Comment Period

12/20/2023	Adam White Government Affairs Alaska Airmen's Assoc.	Thank you for the introduction Melissa. There seems to be some concern by several folks that comments from aviation interests are being downplayed or not being taken into consideration in the Juneau/Douglas Island crossing project. I find it highly unlikely that this would be the case based on years of being involved in processes like this. Some of this skepticism appears to be rooted in accusations that the city of Juneau has been pressuring folks connected to the airport to not get involved. This also seems odd to me considering how dependent the city is on reliable and continuous aviation service to keep Juneau functioning. Any proposed location for a new bridge that would interfere with instrument approaches at the airport is counterintuitive. Any insight or information anyone can provide would be helpful. I'd like to quell the fears of the folks that have reached out to me. Additional Comment Thanks Steve for the breakdown, I especially appreciate the comment that if an alternative interferes with an approach it would be considered a fatal flaw. Like I said in my earlier message, I have been involved in a lot of these projects through the years and I have faith and confidence in your team and the process. I think a lot of the suspicions the folks have that have reached out to me are more with how the City of Juneau is putting political pressure on them and that they can not see the comments online that have been filed.	Adam, I can assure you that the team welcomes feedback from the airport and the public on the Second Crossing PEL study. We have had multiple public meetings, open houses, advisory group meetings, project surveys, and one-on-one and group stakeholder meetings. We are two years into this study and it is a lot to try and put in an email. If you want to have a short Teams call with me and Greg Lockwood from DOT&PF, we could get you caught up on the past couple years of interaction on the PEL study that is on-going. Here are a few facts that may help you: • The PEL study has been on hold for the past 6 months due to the lack of funding and it only got restarted about 2 weeks ago. • The airport is a member of the Technical Advisory Board for the PEL study • We are going to have a worksession with the airport board at their January board meeting to answer some of their recent concerns. • There is still plenty of time to provide input on the alternatives and the Technical Advisory Board will have a formal comment period after the alternatives screening analysis is submitted for their review. • The PEL study is a planning study that will not decide on a single alternative for the crossing, rather it is a planning effort that helps to narrow down the range of alternatives. There are currently 5 alignments under consideration. The future environmental documentation effort is the process that will ultimately decide a "preferred alternative" and that process will not begin until after the PEL study is complete. We are still at	12/20/2023	Steve Noble	

		Additional comment Thanks Steve for the breakdown, I especially appreciate the comment that if an alternative interferes with an approach it would be considered a fatal flaw. Like I said in my earlier message, I have been involved in a lot of these projects through the years and I have faith and confidence in your team and the process. I think a lot of the suspicions the folks have that have reached out to me are more with how the City of Juneau is putting political pressure on them and that they can not see the comments online that have been filed.	least 6 months away from finishing the PEL study, so the environmental documentation will likely start in late summer or fall of 2024 and will require a couple years to complete. • We have communicated to the airport leadership that if there are any of the alternatives under consideration that are in conflict with the airport ALP or any of the approach surfaces, that we will consider that conflict to be a fatal flaw for that alternative. We would either revised the alternative to avoid the conflict or we would eliminate it from further consideration as part of the screening process. We are meeting with the airport in January to help make sure that they have factual information that they are providing input on and that they are not basing their comments on speculation or misunderstandings. If you have additional questions or if you would like to have a discussion to better understand what the alternatives are that are being considered, please let me know and I'll be happy to set up a Teams call. Thanks for reaching out, Steve			

12/22/2023	Janice Schultz	I strongly feel that the North Douglas crossing is necessary for many reasons and would benefit the entire community. When Egan is closed we are totally put at a standstill even in an emergency which could be not only inconvenient but deadly. Being able to get first responders to an emergency sooner is so very important and necessary for our safety and security and should be considered. We have a huge opportunity right now and it would be foolish to irresponsibly not to take advantage of it because it will never happen again. Please do whatever is necessary to make this happen for the sake of the community. Thank you, Janice Schultz	Good afternoon, Janice, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the project email list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Jovie Garcia	12/27/2023	J. Garcia	
1/10/2024	Flynn Casey Pronouns: he/him/his Alaska Dept. of Fish and Game Habitat Section Region I	Hello Kate, I've attached my trip report on stream surveys conducted in late October 2023, in the vicinity of preliminary alternatives identified in ADOT&PF's Juneau-Douglas second crossing PEL study. Thank you, See report dated 1/10/2024	Good morning, Flynn, Thank you for sharing your trip report on stream surveys with the Juneau Douglas North Crossing PEL Study team. I have shared this report with the environmental team to incorporate into the PEL study analyses. Best regards, Morgan McCammon Full report posted on project website and used in Level 2 Screening	1/18/2024	M. McCammon	

1/17/2024	Christopher Hoon Manager of Government Affairs – Pacific Flyway Delta Waterfowl The Duck Hunters Organization™ DeltaWaterfowl.org	Hello, My name is Christopher Hoon I am submitting this letter regarding the Juneau Douglas Bridge North Crossing, on behalf of Delta Waterfowl. Best, See letter dated 1/17/2024	Good morning, Chris, Thank you for your interest in the Juneau Douglas North Crossing PEL Study and sharing the Delta Waterfowl comment letter. Please visit the website at www.JDNorthCrossing.com for the latest information on the study and email any comments to JDNorthCrossing@dowl.com. Best regards, Morgan McCammon	1/18/2024	M. McCammon	
1/19/2024	Mike Stanley	Steve, it's Mike Stanley down in Juneau. I'm calling here. It's about 10:15 on Friday the 19th. I was at the airport board meeting and listened to your presentation and I've been checking the JD N Crossing website to see if that was your presentation was going to be posted. I haven't seen it yet so I was hoping to either get a link to it or if you could send it to me. I thought it was very good presentation. I was just curious. I would like to do it went by kind of fast and they sound wasn't the best. So I was hoping to a get a copy of that or be able to look it over little more at greater length. Anyway my number [redacted] and I also think you have my e-mail from prior prior correspondence. Anyway, thank you and I'll look forward to, you know, seeing that report.	Steve requested Morgan return the voicemail. Morgan called Mr. Stanley and left a voicemail letting him know we plan to post the presentation on the project website. Additional response Good afternoon, Mike, I am following up to the voicemail I left you last Friday. We posted the presentation shared with the Airport Board to the project website: www.jdnorthcrossing.com on the Meetings Page. Additionally, we will post a summary of the comments received from the Board Members. Please let us know if you have any questions or comments. Best regards,	1/19/2024	M. McCammon	Advisory Committee Comment

			Morgan McCammon			
1/25/2024	Jesse Lindgren ADF&G Habitat Biologist	Hi Ben, I have attached the ArcGIS map package to accompany the Juneau Douglas Second Crossing Fish Stream Surveys trip report from Flynn. This should keep all the symbology the same if you want to add it to any of your existing GIS maps. Thank you for the opportunity to conduct the field work and let me know if you have any questions. Thanks,	Received, thank you! Ben Used in Level 2 Screening	1/25/2024	B. Storey, DOT&PF	Advisory Committee Comment

1/30/2024	Lauren Cusimano Communications Manager Audubon Alaska	Hi Sam, I'm Lauren Cusimano, the Communications Manager for Audubon Alaska. I'm working on an article about the Juneau-Douglas North Crossing—something of an explainer piece about the Juneau-Douglas North Crossing and Taayushee/Mendenhall Wetlands for folks outside of Juneau, Southeast, or even Alaska. It will be published on Audubon Alaska's online news feed, "On The Wire." I would like to interview someone at the Alaska Department of Transportation and Public Facilities for the story, hopefully, someone involved with the project. It shouldn't take more than an hour and I'd be happy to send a Zoom invite or meet in person if possible (I am located in Anchorage). If schedules are tight, I'd also be happy to send over my questions via email. Please let me know what you think whenever you get a moment. Thank you so much.	Lauren, Greg Lockwood, our Southcoast Region Design Chief, will be your best point of contact for an interview. I've cc'd him in this message. Please let me know if you need anything else! Kind regards, –Sam	2/2/2024	S. Dapcevich, DOT&{F	

2/5/2024	Stuart Cohen	To whom it may concern: I am writing in regard to the Juneau Douglas North Crossing PEL Study. I believe that alternatives that cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL study process or in an Environmental Impact Statement. This is a poor idea that has been resuscitated with the smelling salts of free Federal money, and I suspect it has more to do with creating jobs for construction companies and realtors than any benefit to the community. The 2nd Crossing has long been ranked extremely low by the AK DOT due to its redundancy and the lack of traffic on the existing bridge. When Juneau had a chance to vote whether to fund the project themselves, the citizens voted it down by a wide margin. Funny what the prospect of free money will do to otherwise sound organizations. It's a very destructive project, further encumbering and dividing our beautiful Mendenhall Wetlands and wrecking the neighborhood for those who live in North Douglas (I am not among them) It's a way of spreading suburban sprawl to North Douglas and, coincidentally, increasing the value of private lands held along the (similarly useless) Pioneer road on West Douglas. All of this would be done at taxpayer expense, as would providing infrastructure to these new areas. Here are some other reasons why: — This project is uniquely susceptible to fatally flawed alternatives because of the tremendous wildlife, habitat, ecosystem services, recreational,	Good morning, Stuart, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	2/8/2024	M. McCammon	

		and viewshed values of Taashuyee, the Mendenhall Wetlands. Again, alternatives which cross the Mendenhall Wetlands State Game Refuge are fatally flawed and should not be advanced in the PEL process or in an Environmental Impact Statement. (Watch: The history of the refuge.) — The purpose and need of the study should be clarified to avoid impacting the Mendenhall Wetlands State Game Refuge and the Salmon Creek, Mendenhall River, and Fish Creek estuaries. —There is not a demographic demand or need for this project. Juneau is not growing and is projected by the Alaska State Demographer to shrink by over 10% through 2050. This places a particularly high burden of proof for a need for this project and is critical in weighing the relative importance of alternatives that cross the Mendenhall Wetlands. This project will likely increase community sprawl and create a services cost burden for all community members. — Alternatives that reduce the short-duration traffic pressure on the existing Douglas Bridge and intersections should be evaluated, including non-crossing opportunities such as improved public transportation and area-wide housing density improvements. — The expenditure of large amounts of federal tax dollars in a community that is not growing for a project which would expand the community footprint is, at best, questionable. Gunalchéesh/thank you,				

2/7/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Greg, Please find attached ADF&G's letter from the Division of Wildlife Conservation regarding the 2nd Crossing Options for Juneau – North Douglas Island. Thank you for your cooperation in timing and incorporation of these comments into the PEL study. We look forward to continuing this process with DOT and Dowl. See letter dated 2/6/2024	Greg sent an email thank you. Additional response in Level 2 Screening	2/8/2024	G. Lockwood	Advisory Committee Comment - Meeting 5

2/18/2024	Wendy Hogins	Recommend posting Volume to Capacity of the Existing Bridge Memo. I presume memo includes level of service analysis. Currently there is no data on project website demonstrating there is a congestion issue. Granted the forecasted future traffic increases are not significant -suggest you provide basis/analysis as to how arrived at given CBJ static or declining population growth projections	Good afternoon, Wendy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. Information on the current and forecasted volumes of traffic on the existing Juneau-Douglas and potential future north crossing bridges are available on the website: Origin Destination Memo: https://www.jdnorthcrossing.com//documents/Origin%20Destination%20Data%20Memo_Final.pdf Bridge Volume Forecast Memo: https://www.jdnorthcrossing.com//documents/Bridge%20Volume%20Forecast%20Memo_Final.pdf Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	3/1/2024	M. McCammon	

2/27/2024	Catherine Pohl	Hi Kristen, Where can I find the following document? It is referenced in the recently released bird/habitat field study report. The report wildlife/habitat technical memorandum you do have online is dated Feb 2023, is not apparently authored by Parametrix, appears to be an entirely different report, or perhaps some sort of abridgement: Parametrix. 2022. Wildlife and Fish Resources Technical Memorandum for the Juneau Douglas North Crossing PEL Study. April 21, 2022.	Hi Catherine, Thanks for reaching out. This report should be on the project website. I'm cc:ing Theresa Dutchuk (our Environmental Lead on the PEL Study). She should be able to direct you to the appropriate place on the website. Let us know if you need anything else. We appreciate your continued interest and feedback on this project! Thank you, Kristen Additional response Hi Catherine, Great catch. I looked into your question and the reference has the wrong dates. We updated the Wildlife and Fish Memo in February 2023 in response to public and agency feedback – it appears that the references in the field study report "Bird and Habitat Surveys Report, Jan 2024" had the older version's date. In sum, the Bird and Habitat Surveys Report that was recently released is referencing the Wildlife and Fish Memo from February 2023, which was written by Parametrix as part of the JDNC project team. Please let me know if you have any other questions. Theresa Theresa Dutchuk Senior NEPA Specialist DOWL	2/28/2024	K. Hansen	

3/1/2024	Laurie Craig	Greetings, I am asking again, as I did months ago without adequate response, for copies of comments submitted to contractor DOWL by Juneau International Airport regarding crossing options for the Juneau-Douglas Second Crossing. This is essential public information that has been hidden from public review by phrases in DOWL comments such as “the airport has concerns.” Indeed, the airport has significant concerns regarding the hazards that would be created for airport operations by crossings at Sunny Point and Mendenhall Peninsula. Please send copies and respond to this email at your earliest opportunity.	No response. All comments will be in the final PEL Study Report.			

3/3/2024	Catherine Pohl	Where can I find the original tech memo? It was quite different, as I recall. For the public PEL/NEPA record, both versions must remain available. Actually, it IS probably referencing the older document, since most of the bird info was removed in your "updated" version.	Hi Catherine, The old version of the memo is no longer valid, the version on the website provides the best current information. The changes made from the old version to the updated one include one sentence added under the amphibian section regarding the documented breeding area for western toads. Also, a clarification was made regarding spotted frog and Pacific chorus frog being documented in southeast, but not near Juneau. The only other addition to the document regarded the short-haired albatross clarifying that they may use the study area, but are not expected to. Please let me know if you need anything else. Theresa Theresa Additional Response Hi Catherine, Thank you for your consideration of the administrative record for the project. I will confirm with our team whether or not we need to keep the outdated memo version in the record. As noted in my previous email, the only change regarding birds between the two memos is the clarification on the short-tailed albatrosses Apologies, I see I called them short-haired albatross erroneously in my previous email. Theresa	3/3/2024	T. Dutchuk	

			Theresa Dutchuk			

3/3/2024	Catherine Pohl	OK-- those do look like minor changes. They are not entirely correct, however, as toads have been recorded on the west side of Mendenhall River as well. Well then, where did I see an extended section on bird use of the project area that included query results from ebird for various habitat types and locations, with a focus (oddly) on upland areas. Where is THAT document now, if it was not the previous wildlife tech memo? Was there one specifically on wildlife, or birds, that was posted earlier?	Hi Catherine, I wonder if you are thinking of the Field Study Work Plan (attached)? We did share it with the stakeholders and Fish and Wildlife Service for review and comment prior to commencing fieldwork. It is not published on the website because it was an internal guiding document verifying field methodology with the jurisdictional agencies and stakeholders. The only other locations that we have discussed birds is in the Baseline Data Memo, Field Study Report, and Environmental Setting Document (links embedded). Theresa Theresa Dutchuk	3/3/2024	T. Dutchuk	

3/3/2024	Catherine Pohl	Thanks for clarifying this – and on the weekend! It was the map showing "numbers of bird species" at specific points within the project area that I am remembering, in both the baseline data and setting documents. (What does this mean, by the way? It is too high for numbers of species and perhaps too low for numbers of individuals. Is this in total, at one time? An annual sum of individual bird observations? The map should clarify this.) I believe you shared previously that this was from eBird. It is still not clear why you have not used the USFWS survey or the more recent Hotspots survey, which are both more comprehensive, providing solid information by species, species group, and season and a wider scope of locations. Even if using only eBird, the data could have been presented by species or species group, season, and approximate location. It is also possible to derive effort statistics if using complete lists, so that relative abundance can be compared spatially and seasonally. There should be an explanation within your reports of the basis of your numbers, including a caveat that eBird data is not systematic but entirely incidental and most available or abundant for easily accessible and often-visited areas (unfortunately also true for your survey data). The info from the ADF&G habitat mgmt guide is likely very out of date; most of these guides date from the early-80. The nesting "south of the airport" probably referred to tern nesting that ended long ago when the spoil islands became heavily vegetated and nesting moved near the glacier. There may be some gull or other waterbird nesting out there now, not sure what the current situation is, but it does not appear that there has been any attempt to document the current situation in your	Hi Catherine, Thank you for your detailed notes and recommendations below. You have provided valuable observations. The Planning and Environmental Linkage (PEL) study includes reporting based on available desktop resources. In select circumstances the PEL study team chose to conduct fieldwork to validate the desktop resources (e.g. wetland delineation, intertidal habitat, bird habitat, etc.). Additional research, such as your recommendation to complete interviews with local bird watchers, could be conducted during the National Environmental Policy Act (NEPA) stage, which follows this planning study. Additionally, details would be required under NEPA, such as the extent and importance of tidal wetlands and the specifics of high and low salt marsh types, sand or mudflats, mussel/rockweed beds, deltas, and coastal meadows, that have not been evaluated in depth due to the planning level analysis of this PEL study. A NEPA review is very comprehensive and detailed and would require an analysis of the functional value and importance of resources, in order to prepare for avoidance, minimization, and mitigation. This PEL study takes a high level approach based primarily on readily available data to evaluate multiple potential solutions to an existing problem. Thank you again for your detailed consideration. Theresa	3/4/2024	T. Dutchuk	

		reports (what species or locations?). There is plenty of passerine nesting along the edges of the refuge yet your ratings matrix notes zero nesting habitat at most sites. What is your definition for nest site/location? Interviews with local birders and bird biologists would have clarified both colonial waterbird and refuge edge passerine nesting for you. What are the nesting locations noted for Sunny West (species, source, date)? Eagle use has probably changed as well since the ancient habitat management guides, largely due to the dump and hatchery. Salmon Creek, Lemon Creek and the dump/Vanderbilt area are concentration areas for eagles, though they are present all along the refuge edges, the Mendenhall river, creeks, and channels. Most striking, all of your reports omit the importance of refuge habitats, including specific areas within the alignments, for stopover, staging, wintering, and breeding bird concentrations including use by both resident and migrant populations. Some of the key concentration areas and habitat types lie within the proposed alignments. This leads to problems in your ratings matrix. It does not escape notice that acreages of bird habitat types are not included in your ratings matrix. Project documents obscure, misrepresent and/or entirely avoid mention of both the extent and importance of tidal wetlands let alone the specifics of high and low salt marsh types, sand or mudflats, mussel/rockweed beds, deltas, and coastal meadows. Does your ratings matrix acreage for wetlands include intertidal wetlands, or only freshwater wetlands, and what about				

		wetlands with tidal and freshwater influence? Do your acreages for intertidal areas include vegetated and unvegetated areas-- and is this from your field survey or the inaccurate cover type map? What is the basis for the "disturbed area" acreage calculation and is it removed from totals for freshwater or tidal wetlands or tidelands and treated as a separate type? Your cover map representation of vegetated vs unvegetated tidal areas remains very inaccurate, as noted below. Since this must have been noted during the fall field surveys, if not before, it is surprising that it is not corrected in the updated tech memo or the field study reports. If you had placed a discernible basemap under the wetland mapping in your report, basemap accuracy could be assessed using the fall field survey results, supposedly one of the goals of the surveys. A quick inspection shows that your wetland report fails to map a large number of stream and tidal channels within the alignments; these are usually considered essential for delineation maps or any sort of impact assessment. I recommend that you provide updated field survey reports with delineation maps clearly shown over your (hopefully updated?) cover type map and recent imagery-- or provide the shapefiles upon which your maps are based so that others can do the needed comparisons. Your cover map does not show a channel connection between the east and west sides of the refuge, another serious gaffe since it bears on access as well as hydrologic connectivity and habitat. Your eelgrass survey results table should include					

		tidal range at the time of each survey. Your intertidal survey fails to document the extent, character, or importance of low and high salt marsh types and other tidal habitat types across the project area or within the alignments. It attempts to roughly cross-reference the Cowardin tidal wetland definitions based on timing of tidal flooding to commonly used marsh type names but fails to do this clearly or in a spatial way. It misses this existence of bedrock on the Douglas side near the 5 mile alignment. The field study reports are not ripe for review, or for use in decision-making, without the data and map corrections suggested above. You would be well-advised to make these fixes and extend your review dates accordingly.				

3/4/2024	Catherine Pohl	Thanks for your prompt response. I respectfully disagree. Habitat types such as low and high marsh, coastal meadows, and tidal channels, and basic information on wildlife use are exactly what is needed for planning level analysis. The PEL process was in fact created to efficiently avoid unnecessary impacts and analyses by identifying the key resources and impacts early in the planning process. Consultants were paid to plan and conduct field surveys that include mapping high and low marsh as well as other intertidal and upland habitat types. Your cover maps were to be ground-truthed, assessing the need for additional imagery and mapping. Presumably, these recent field surveys and previous data summary efforts were intended to contribute to the impact matrix-- but your matrix fails to incorporate the key readily available or field survey information. Here are a few questions along with a request for GIS map layers; answers and map layers are needed to meet review deadlines. TAC members have requested assistance in reviewing the field reports and site impact matrix. To do this, I need map layers and answers to a few questions. Could you please provide GIS layers for the wetland delineation and cover layers? These could be zipped and sent, or I am happy to provide a flash drive and pick them up in Juneau. The wetland layer is not shown over a useful basemap or imagery. For comparisons to imagery and elevation data and to verify acreages, the wetland and cover layers are needed in GIS form. Answers to the following questions are needed to interpret the impact matrix and study reports under	Hi Catherine, Apologies on the delay getting back to you. Regarding the GIS data, we are actively working with our data and it can be made available on request when we conclude the PEL study. Detailed map books showing the data are offered in the Survey Report Memos and the Baseline Data memos that we have previously provided links for on the website. Please refer to the maps and map books for mapping information. Please see responses to your questions below. -- What does the" #bird species" mean on your fish & wildlife tech memo wildlife map? I believe these were drawn from eBird but they would not be numbers of bird species, or numbers of individuals-- so what are these numbers? Could you please provide me the figure number to which you are referring? --What "nests" are referred to in the selection matrix just released – what species or species group was surveyed? Where does this data come from? What was the extent, scope, and date of the nest survey? Why was this chosen for the matrix? The data for this parameter comes from Armstrong, et al., 2004. Please refer to the report for extent, scope, and dates. This information was chosen to identify potential impacts to important migratory bird habitat. --What do the acreages of "wetlands" and "intertidal" represent? The acreage represents acreage potentially directly impacted by construction. Are "wetlands" only freshwater wetlands or do they include tidal wetlands? Wetlands include both freshwater and tidal. Does intertidal include both vegetated and unvegetated intertidal? Intertidal includes both vegetated and	3/11/2024	T. Dutchuk	

		current review or referenced within them: -- What does the" #bird species" mean on your fish & wildlife tech memo wildlife map? I believe these were drawn from eBird but they would not be numbers of bird species, or numbers of individuals-- so what are these numbers? --What "nests" are referred to in the selection matrix just released – what species or species group was surveyed? Where does this data come from? What was the extent, scope, and date of the nest survey? Why was this chosen for the matrix? --What do the acreages of "wetlands" and "intertidal" represent? Are "wetlands" only freshwater wetlands or do they include tidal wetlands? Does intertidal include both vegetated and unvegetated intertidal? (It looks like there is no tally of affected salt marsh acres, which is astonishing, considering its global, national, regional, and local importance.) Maps showing your matrix acreages would be helpful. Were these drawn from the delineation maps or the cover map? --What does "disturbed" represent? Are these removed from the acreages of wetlands or intertidal or are they included in them? Thanks very much.	unvegetated. (It looks like there is no tally of affected salt marsh acres, which is astonishing, considering its global, national, regional, and local importance.) Maps showing your matrix acreages would be helpful. Were these drawn from the delineation maps or the cover map? Please refer to the Reports for Intertidal and Wetland surveys for maps on the project website. --What does "disturbed" represent? Are these removed from the acreages of wetlands or intertidal or are they included in them? Could you please clarify to what document you are referring? Thank you for your interest in this project, Theresa			

3/5/2024	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Hi Morgan and all, I just became aware of this mapping data source for coastal resilience and fish and wildlife resources called the Coastal Resilience Evaluation and Siting Tool (CREST), that includes layers for the area of the Juneau Douglas Second Crossing as another source of information for evaluating the project. Here is the link. https://resilientcoasts.org/#Home There is an Alaska tab to navigate to Juneau-Douglas and additional information on the data layers. Additional Comment Awesome! Thank you so much for adding it to the analysis Theresa. Linda	Hi Linda, What a great mapper. We can use the data to see how each alternative fares. Thank you! Theresa Included in Level 2 Screening	3/5/2024	T. Dutchuk	Advisory Committee Meeting 5
3/5/2024	John Goeckermann Office of Senator Kiehl	Good afternoon, I am a staffer for Senator Kiehl I've been tasked with keeping track of the JNDC meetings/activities for the Senator. I am wondering if I could get the zoom link for the meeting on Thursday any other information about the in-person meeting. The Senator may be able to make it in person, but his schedule is chaotic. Thank you	Hi John, The virtual meeting will be held Thursday, March 7, 1:00-3:00 p.m. via Zoom, https://us06web.zoom.us/j/81726535695?pwd=XMezc2K3xUvQgis2bJoYWZTMJfENDP.1. The in person meeting will be held in the Conference Room at The Huddle on Thursday, March 7, 4:00-6:00 p.m. I will forward the invitations for both meetings. We are happy to have the Senator participate when he can and for you to participate also. Thank you for reaching out.	3/5/2024	M. McCammon	Advisory Committee Meeting 5

			Morgan McCammon			
3/5/2024	Matt Robus	Matt called say he would be attending one of the advisory committee meetings on Thursday, March 7, 2024. He also asked when the draft level 2 screening results would be shared and what comment period could be expected following the meeting. Morgan shared that the draft level 2 screening results were shared with both advisory committees on March 1, 2024, and the meeting would be followed by a three week comment period, with comments requested by March 28, 2024. Matt asked if there would be any other opportunities for comments durning this process before the PEL Study was complete. Morgan shared that there would be a final public meeting in summer 2024 to share the draft PEL Study Report, with a 30-day comment period. Morgan then resent the March 1, 2024, email to Matt.	Hi Matt, Thank you for calling. Please see the email sent March 1 with the draft level 2 screening scoring and impact tables. We look forward to talking with you on Thursday. Best regards, Morgan McCammon	3/5/2024	M. McCammon	Advisory Committee Meeting 5

3/6/2024	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Hi Morgan, Could you add Molly Zaleski, who has been teaming up with me on the JD 2nd Crossing project to the invite for tomorrow's meeting? Her email in on this. Thank you,	Hi Linda, I will forward the meeting invitations and materials to Molly. Thank you, Morgan McCammon	3/6/2024	M. McCammon	Advisory Committee Meeting 5
3/6/2024	Molly Zaleski - NOAA Federal	Thank you, Morgan. I'll review these and I responded Yes to the 1-3 pm Zoom meeting. If I have questions about EFH designations or helpful clarifications (on salmon EFH in particular), would that be helpful to share during the meeting or should I provide a write-up to you via email? I'm also wondering if there's been any early coordination with another NOAA division, Protected Resources, on marine mammal interactions. Most proposed crossings may be shallow for humpbacks, but certainly Stellar sea lions, harbor seals, and other marine mammals in the area may mean the project requires a Section 7 Consultation and a marine mammal observer on site. Thanks again,	See response to Linda and Molly	3/6/2024	M. McCammon	Advisory Committee Meeting 5

3/6/2024	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Morgan and Molly, To follow up Molly's comments on marine mammals, would there also be distribution maps for humpback whale, Steller sea lions and harbor seals, and perhaps also harbor porpoise occurence in the project area? And forage fish species distributions for those marine mammal species as well as EFH fish species to include eulachon and sand lance?	See response to Linda and Molly	3/6/2024	M. McCammon	Advisory Committee Meeting 5
3/6/2024	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	And also krill, a prey species for whales, see attached.	Hi Linda and Molly, Please bring comments and questions to the meeting. We have allotted time for group discussion. Also, please feel free to follow up after the meeting with additional comments and questions. We are requesting feedback on the information presented by March 28, 2024. Additional response in Advisory Committee Meeting 5	3/6/2024	M. McCammon	Advisory Committee Meeting 5

3/6/2024	Linda Shaw (she | her) Wildlife Biologist, Alaska Region NOAA Fisheries | U.S. Department of Commerce	Additional comment Thanks Theresa, and yes, great information! What I was speaking to was distribution map polygons to include the marine mammals, in addition to the narrative, and some species like eulachon and krill that I can't find mentioned anywhere, although if I overlooked them, please let me know.	Hi Molly and Linda, Looking forward to your participation in the meetings! In case you missed it, we have baseline data memos and maps from which we based the alternative screening. The Wildlife and Fish Memo is located here: https://www.jdnorthcrossing.com//documents.html Theresa	3/6/2024	T. Dutchuk	Advisory Committee Meeting 5
3/6/2024	Craig E. Dahl Government Affairis Greater Juneau Chamber of Commerce	Morgan, I'm sorry to ask the obvious, but when I planned to be at the Huddle meeting in person, I overlooked by own plan to be in Sitka for the Southeast Basketball tournament. I have commitments over there and not sure of times yet, but I may be able to do the zoom meeting at 1:00 even if I can't hang on for the entire time. Could you send me a zoom link please.	Hi Craig, Here is the Zoom meeting information: Join Zoom Meeting https://us06web.zoom.us/j/81726535695?pwd=XMezc2K3xUvQgis2bJoYWZTMJfENDP.1 Meeting ID: 817 2653 5695 Passcode: 904248 We hope you can join us. Morgan McCammon	3/6/2024	M. McCammon	Advisory Committee Meeting 5

3/8/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Good morning Steve and Greg, Thank you for the presentation yesterday. Your openness for us all to communicate and be involved is appreciated. I left Steve a voicemail; I have some questions about process and timelines. Below is my summary and I'm available to meet via phone or in person. My desk line is (907) 267-2274 and my cell is (907) 317-7236. Thanks, Sue In this second screening process, I understand there will be a revised list of alternatives prioritized by the information collected and comments received by March 28, 2024. That memo would then be posted / distributed and used to develop the NEPA for the project. This will all be presented at an Open House this summer. • The due date for comments (March 28) was only announced yesterday; this 21 day window is seemingly short for the 400+ pages of information to process. I recognize hat documents have been posted as they become available on the web page, but I was still surprised by the short turnaround for this phase. Is it possible to extend this for two additional weeks to April 11? • Considering the methods that were used to gather data during last fall's field work, the results are compromised in terms of following protocols that are more widely accepted particularly for bird surveys. While that was preliminary to support the second screening process, you mentioned that the NEPA process will involve more studies to a greater detail. Will we be able to provide input on how field work is conducted during the NEPA process? We collectively include a wide variety of experts that	Meeting with ADF&G on 3/19/2024 to discuss concerns			Advisory Committee Meeting 5

		have worked in the Mendenhall Wetlands for decades and would be able to give scientifically credible guidelines on conducting research there. • Is the ADF&G letter that was submitted on 2/6/2024 being integrated into this synthesis as it was received before March 28? We do plan to submit another comment letter for this round of screening. • When the date of the open house is available, we would like immediate notification. • Is there a way to see other agency and organizational comments submitted to Dowl and DOT regarding this process? It seems that their input would be a valuable piece of the public record.				

3/8/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Hi Steve, My name is Sue Rodman. I met with you folks yesterday at the Second Crossing meeting and I worked for the Alaska Department of Fish and Game. I had a few questions for you about the Pell process and how these comments will get synthesized. My number is 267-2274. I'm also available on my cell phone 317-7236. Those are both 907 area codes. Alright, thanks. I'll look forward to visiting with you here in the next couple days. Bye.	Meeting with ADF&G on 3/19/2024 to discuss concerns			Advisory Committee Meeting 5
3/9/2024	Francis Adams	The Salmon Creek crossing is the alternative that balances wetland integrity and development options. Thank you.	Good afternoon, Francis, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	3/11/2024	M. McCammon	

3/11/2024	Joshua Adams	Dear Juneau Assembly and City Manager, Much consideration has been given to the second Douglas crossing, which could open up the possibility of development and access to North Douglas. The project has many advantages for Juneau, and word has it that Dunleavy is especially keen this year on divvying out funds in preference to certain infrastructure projects with an emphasis on roads and bridges. Our governor tends to be capricious when concerned with certain pet projects. Dunleavy's caprices change from year to year, but word has it that this year he is eying new roads and bridges in smaller communities for improved access - there seems to be a window of opportunity for state funding for these projects as a priority over other things. It seems that the city manager has picked up on this, as I saw proposals for the additional Douglas crossing on the cbj website: Juneau Douglas North Crossing – Draft Level 2 screening results – City and Borough of Juneau In short, I think it's opportune. A new Douglas crossing makes development of Juneau's golden isle more feasible from a traffic and legal standpoint. This is one project that has a window of opportunity staring directly at it. I encourage you to focus your attention toward this project, and have a further comment to make regarding some of the proposed choices for access. The option marked out in purple seems like a long shot, both in distance and funding. My response to this option might seem unexpected, given the tendency of NYMBYism in our community: I am for it. I think that a crossing from the Mendenhall	Good afternoon, Joshua, The City and Borough of Juneau City Manager shared your comments with the Juneau Douglas North Crossing PEL Study Team. We appreciate your interest. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	3/11/2024	M. McCammon	

		Peninsula could be advantageous for two reasons. It is good to connect a bridge to North Douglas because it provides an access point for public transportation to service that area without having to double back. The adept use of public transportation, coupled with biking, helps us to reduce traffic and the use of fossil fuels. I like the idea of making a circle around the airport because it leaves further development options open in the future. The other options seem more confined to the purpose of merely adding a much-needed second bridge to Douglas. The other thing that appeals to me about the purple crossing is that it connects Wilma Avenue to the Blueberry Hill trail. This is a popular mountain biking destination, and I would suggest it be developed as a trail, even if it is not used as a second crossing to Douglas. The Wilma Ave. access is a sort of continuation of the Mendenhall Wetlands trail, and a surprising amount of people cycle all the way from there to Auke Lake and beyond. Engineer's Cutoff road isn't really safe for biking due to its steep embankments and narrow lanes for cars. A decent road or biking path from Wilma Ave. that runs on the East side of the Mendenhall Peninsula could be done cheaply due to the relatively flat, gentle ground East of the FAA tower. sincerely,				

3/11/2024	Catherine Pohl	Hi Theresa, Thanks for your response. You have not answered the question about "disturbed habitats". Where did you get these acreages for your ratings matrix, and how do you define disturbed? Regarding the GIS layer-- The hardcopy maps of delineation and intertidal are not shown over useful baselayers so are hard to evaluate. You have asked your advisory committees to review and comment on them and they have asked me to assist with that. In order to do that, we need to lay the delineation and intertidal cover layers over good base layers, so we need the shapefiles. This should be simple to provide with zip files or I can drop by with a flash drive. Giving us the draft upon which you asked us to comment would not prevent you from using them or revising them, and instead may help you obtain a better final draft. Presumably that is the intention of asking for review. Regarding the # nests data-- I do not see this within the Armstrong et al 2004 Hotspots report-- that is the one you are referencing? What am I missing? In fact, they say they do not have much info on dispersed breeding season use of the upland edge and meadows.So again, please provide the data source for your # nests in the ratings matrix, by page or figure number as well as title, author, and date. It is not in the 2004 Hotspots report. Was it perhaps the USFWS report by Caine et al? Or something recent from others? The Hotspots report does note that birds nest in the supratidal edge and coastal meadows, of course, but specifically says they have little data on this dispersed use since it was not the focus of	Hi Catherine, We appreciate you taking the time to review our environmental documentation and screening. There is no additional data to provide at this time. Please use the sources available on the website, or delivered as part of the advisory committee meetings to provide comments and/or questions. The project team will be reviewing all comments and questions received from advisory committee members once the review period is complete on March 28. Theresa	3/11/2024	T. Dutch uk	

		their survey. It also notes that summer is the season of least bird use of the Mendenhall wetlands area, also what is expected for a wetland that is important for migratory stopover and as a wintering area. Breeding season use, while significant, is not the key use of most the refuge, so in any case, # nests is not a good indicator of value unless you are looking just at the upland edge. I just spoke with Bob Armstrong and Richard Carstensen, two of the authors of the hotpots report. Neither are aware of a data set for nests for the refuge, though Bob noted that many decades ago he detected many nests in a number of areas with his colleague Frank Glass, most of which are not used any more due to habitat change and dogs. Bird habitat is arguably the most important habitat value of the project area and the primary value for which this public resource was protected as a refuge, so it is important to provide the basis for your ratings of bird use and habitat, particularly wetland habitat. In my view, the entire ratings matrix should be accompanied by citations for references used. If this is available somewhere, can you point me to it? Best,				

3/11/2024	Barbara Hyde	I am unable to tell by the map just where the new crossing ends — is it Wilma Ave? Fritz Cove? Somewhere else?	Good morning, Barbara, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your question with the project team. The Mendenhall Peninsula alternative was modified during level 2 screening to reduce potential impacts neighborhoods. It begins at approximately milepost (MP) 8.75 of North Douglas Highway, crosses Fritz Cove to the Mendenhall Peninsula, and travels along the ridgeline for approximately four miles north before terminating at approximately MP 11 of Glacier Highway. This alternative proposes to use property owned by the City and Borough of Juneau (CBJ) to the extent possible. Please visit the website at http://www.jdnorthcrossing.com/ for the latest information on the study. Best regards, Morgan McCammon	3/13/2024	M. McCammon	

3/11/2024	Gene Randall	Thank you for the CBJ/PWFC/DOWL 2nd Crossing update today. My wife and I followed via Zoom. The presentation pages that displayed impacts of each level 2 alternatives through pie charts and alternative specific costs are quite informative. Please post those pages to the project website as soon as possible.	Good afternoon, Gene, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. We recently added the presentation shared with the CBJ Assembly Public Works & Facilities Committee to the study website Meetings Page: https://www.jdnorthcrossing.com//meetings.html . Please continue to visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	3/14/2024	M. McCammon	
3/12/2024	Bruce Baker	Hello Morgan - I have repeeatedly asked to have my name added to your second crossing email distibution list, but I see that it still is not on it. Please add my name. Additional Comment Thank you, but please also add me to this distribution list. I belong to at least two organizartions which are actively involved in addressing and rresponding to everything shared by DOWL regarding this project. Thank you.	Good morning, Bruce, You are listed on our email contact list. The last newsletter was sent in August 2023. We plan to send another newsletter prior to the final public open house, sharing the meeting details. Please visit the at http://www.jdnorthcrossing.com/ for the latest information on the study. Best regards, Morgan McCammon	3/13/2024	M. McCammon	

3/13/2024	Emily Bos	Good afternoon, We moved to 8480 N Douglas in 2020, seeking some open space and land for my husband to start building his farm, a lifelong dream of his. Shortly after moving in, we started to hear rumblings about a second bridge crossing. We have been slowing developing our dream, my husband specifically, spending hundreds of hours cultivating our land. We have been watching the developments about the second crossing closely, holding our breath about whether or not, one day the city will come in to take buy our land to make room for the bridge. The most recent article posted is the Juneau Empire sites that the Sunny point options have the highest scores. These options are the 2 that come directly to our home. As you can imaging, the decision about where the second bridge will go has immediate and direct influence on how and if we spend time further cultivating our land in the next 5-8 years. I know this project has an extended timeline, but we need to know if our house will be directly impacted if sunny point is the final location chosen. I acknowledge that the decision is a long ways out, but I assume that a detailed map of where the bridges will go already exists. I have seen mile 6 mentioned as the Douglas side terminus for both Sunny Point options. Is the 6 mile marker? Is it 5.8 miles? Do you have more specifics on this? If our house is impacted by the second bridge, when would we expect to be hearing from the city?	Good afternoon, Emily, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Both Sunny Point alternatives begin at approximately milepost (MP) 6 of North Douglas Highway. These are two conceptual alignments in a Planning and Environmental Linkages Study process that propose to use CBJ owned lands to the extent possible. Additional details can be found on the study website, including the presentation recently shared with the CBJ Assembly Public Works & Facilities Committee: https://www.jdnorthcrossing.com//documents/UPDATED_FINAL_2024_03_07PWFC.pdf. This PEL study is expected to be complete in summer 2024. Following completion of the PEL Study Report, DOT&PF and CBJ would determine the path forward to initiate preliminary design and environmental documentation under a new contract. During this phase, more specific details would be designed and impacts to people and the environment understood. The processes needed to initiate a construction project will provide many opportunities for additional public comments. Please continue to visit the website at http://www.jdnorthcrossing.com/ for the latest information on the PEL study and continue to send any additional comments and questions to JDNorthCrossing@dowl.com. Kind regards, Morgan McCammon	4/9/2024	M. McCammon	

		Thank you for your time addressing my questions.				

3/13/2024	Julie Bednarski, North Douglas Neighborhood Association	Thank you for reaching out to follow up. Morgan it was me and a few other folks like Linda Shaw, Alex Wortheimer(sp?). We specifically wanted to meet about how the environmental rankings were scored. I believe Steve said Theresa? Would be back on Tuesday and could meet with us. Next Friday works for me. Thanks FOLLOW UP Morgan, Thank you for the invitation. As Julie mentioned in her response, she will attend this meeting in my stead (she's our alternate stakeholder representative), as she has focused her review on the environmental criteria in the scoring tables more than I have. I'll look forward to hearing the outcome of that discussion. Our committee met with the NDNA Board last evening and we do intend to file written comments on the Level II scoring tables and process prior to March 28.	Hi Julie, Thank you, we are reaching out to agencies and other organizations who expressed interest in further discussing the fieldwork reports and level 2 screening preliminary results. If next Friday also works for Mike, I can send out a calendar invitation. Morgan McCammon Project team met with NDNA 3/22/2024	3/13/2024	M. McCammon	Advisory Committee Meeting 5
3/14/2024	Winston Smith, Juneau Audubon Society	Morgan: I have invited two other JAS board members to join me in a meeting on Wednesday, March 20 at 3:00-4:00 if that still works for you. Also, I have a request: I'd like you to record the meeting so we can share with other board members. Thank you.	Morgan emailed a Teams invitation to Juneau Audubon Society board members	3/14/2024	M. McCammon	Advisory Committee Meeting 5

3/14/2024	Margaret Custer · Executive Director Southeast Alaska Land Trust	Hi Morgan, I will be out of town next week with my family. Our team would be glad to meet with you on Friday, March 29 anytime after 10, Tuesday, April 2 anytime 10:30-4, or Wednesday, April 3 10-11:30. Zoom is best for us, or we can meet with you in person in Juneau. In the meantime, I would like to request that the comment period for the Technical Advisory Committee be extended a minimum of two weeks, ideally four weeks to April 25, to allow adequate review of the large volume of materials DOWL has assembled for consideration. The fact that the PEL Study has exceeded its original timeline by more than a year should not become an emergency for the agencies who are responsible for providing input at this point. I have heard from several colleagues at state and federal agencies that this timeline is straining their capacity. In order to provide the best advice possible, we all need more time. Thank you,	Morgan emailed a Teams invitation to Margaret.	3/19/2024	M. McCammon	Advisory Committee Meeting 5

3/14/2024	Margaret Custer · Executive Director Southeast Alaska Land Trust	Hello Morgan and team, I would like to request that the Technical and Stakeholder Advisory Committees be provided at least two additional weeks to review and comment on the large volume of materials shared with us. A three-week deadline to provide meaningful feedback on hundreds of pages of detailed reports and scoring tables is just not enough. The PEL Study timeline has been extended multiple times to accommodate DOWL's needs such that we have now entered year 3 of the study, and it would be appropriate to extend it just once for the advisory committees. Can the deadline for comments from the TAC & SAC be extended until April 11 at the earliest, or ideally April 25, so that the agencies and stakeholders have adequate time to provide the advice that has been requested? Thank you,	Good afternoon, Juneau Douglas North Crossing PEL Study Advisory Committee Members, Thank you for participating in the advisory committee; we appreciate the diverse perspectives you provide. Due to several requests for additional review time, we are extending the deadline for comments on the level 2 screening preliminary impact table and scoring tables (attached) to April 11, 2024. After that, we will evaluate and incorporate necessary changes to finalize the level 2 screening and prepare the draft PEL Study Report. Thank you, Morgan McCammon	3/18/2024	M. McCammon	Advisory Committee Meeting 5
3/15/2024	Jesse Lindgren, ADF&G	Hi Greg, I am reaching out about the Juneau Douglas Second Crossing, I heard that you might have reached out to DWC asking for official comments related to the level 2 screening. I wanted to confirm what you are looking for with official comments and also please include Kate or I in regards to comments from ADF&G. Feel free to give me a call at any time. Thanks, Additional Comment Hi Morgan, Yes, Kate and I are available and will attend that	Hi Jesse, We scheduled a meeting next week with Sue Rodman and Roy Churchwell on Tuesday, March 19, 1-2 p.m. via Teams to discuss Sue's concerns shared with the study team at the Advisory Committee meeting and after. Would you and Kate have availability to join that meeting? We would like to get the department's feedback on the level 2 screening preliminary results, and this would be a good opportunity to coordinate with the divisions within the department. Let me know if this time works for you or some other times you are available. Thank you,	3/15/2024	M. McCammon	Advisory Committee Meeting 5

		meeting. Thank you,	 Additional response Morgan emailed a Teams invitation to ADF&G and met on 3/19/2024			
3/15/2024	Ron Somerville, MWSG	Morgan, thank you for responding to our expressed concerns with the present ranking of crossing alternatives with the applied criteria. Also appreciate your attempting to arrange possible meeting dates. After meeting and discussing our commitments and time constraints we have concluded we will have to wait until after we complete our review of the recent DOWL material before we can conduct an effective discussion with suggested alternatives. Because of the volume of material DOWL has released, we would support an extension of the comment period of up to 2 weeks as suggested by other organizations. I will get back to you after our review is completed to see if a meeting is possible.	Good afternoon, Juneau Douglas North Crossing PEL Study Advisory Committee Members, Thank you for participating in the advisory committee; we appreciate the diverse perspectives you provide. Due to several requests for additional review time, we are extending the deadline for comments on the level 2 screening preliminary impact table and scoring tables (attached) to April 11, 2024. After that, we will evaluate and incorporate necessary changes to finalize the level 2 screening and prepare the draft PEL Study Report. Thank you, Morgan McCammon	3/18/2024	M. McCammon	Advisory Committee Meeting 5

3/20/2024	Rebecca Bellmore Science Director, Southeast Alaska Watershed Coalition	Hi Morgan, Please see below for our initial comments on the PEL level 2 draft scoring (letter also attached). Thanks, Rebecca Bellmore See letter dated 3/20/2024	Good morning, Rebecca, Thank you for sharing your initial comments. Morgan McCammon Additional response in Level 2 Screening	3/20/2024	M. McCammon	Advisory Committee Meeting 5
3/28/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Hi Theresa, When will the mapping application be published? And which site will it be posted on? Many thanks,	Hi Sue, We are working through a round of internal review on the mapper currently. Barring anything unforeseen, it should be available within a week. We will be sure to send an email to all our advisory committee counterparts as soon as it is available and provide a link to the location (which is still being determined). Thanks for checking in, we are looking forward to getting this tool out to everyone! Theresa	3/28/2024	T. Dutchuk	Advisory Committee Meeting 5

4/2/2024	Margaret Custer · Executive Director Southeast Alaska Land Trust	Hi Morgan, I have been out of the office and will have to cancel or postpone today's meeting. I apologize for the late cancellation, as this was unplanned on my part. However, if there are any questions we can answer for you by email, please send those as you have them. You will still receive comments from us on the level 2 screening by April 11, but I'd be glad to answer questions on wetland functions and impact acreages ahead of time as needed. Thank you,	Hi Margaret, We understand, thank you for the advance notice. Likewise, we will continue to be available to meet with you if you have any questions for the PEL Study team. We look forward to receiving your comments on the draft level 2 screening, but we do not have any questions for you at this time. Best regards, Morgan McCammon	4/2/2024	M. McCammon	Advisory Committee Meeting 5
4/3/2024	Mike Stanley Chair, Second Crossing Committee NDNA	Dear Ms. McCammon and JD North Crossing Study Team, Attached please find the comments of the North Douglas Neighborhood Association on the PEL Level II screening results and scoring tables. If you have questions regarding these comments, or want to discuss NDNA's concerns in further detail, please advise. Thank you. See letter dated 4/3/2024	Good afternoon, Mr. Stanley, Thank you for providing comments. Morgan McCammon Additional response in Level 2 Screening	4/3/2024	M. McCammon	Advisory Committee Meeting 5

4/3/2024	Molly Zaleski - NOAA Federal	Thanks, Morgan. I just got around to looking at the mapping tool and noticed the layer prepared for EFH. After our discussion, I think it's best to note that EFH covers the entire marine area as well as wetlands and, importantly, anadromous streams. So the layers presented in this online mapping tool that show three areas of consideration for EFH is incorrect. It's helpful to note that EFH is in the study area and identified for GOA groundfish species and Pacific salmon species, but breaking it out by area at this scale leads to a false comparison of the crossing alternatives and doesn't take into consideration the EFH text descriptions that equally inform EFH areas alongside the distribution-based maps (which, again, rely on a bottom trawl survey dataset that does not survey Gastineau Channel). I hope this helps when updating the EFH layer in this public-facing mapping tool. Let me know if you have any questions. Additional comment Thanks for that clarification, Theresa. I think the crossed communication was it's good to include EFH but it needed to be amended to reflect the whole area of EFH and not the misleading fragmentation. Thanks for including EFH in the narrative, and feel free to request a review of any text from either of us over here to make sure it's being communicated well.	Hi Molly, This sounds like my mistake. I'd like to clarify that we do have notes to include prey species habitat, sub-tidal, wetlands, anadromous streams, and riparian habitat as EFH. I also have notes to review the text descriptions. I think where I may have miscommunicated is during the follow-up email when I asked if we should include our current mapping (the fragmented areas/zones) in the GIS mapper – I understood your team thought there might be utility in including the fragmented areas/zones in the public facing mapper. We will delete the EFH layer from the public facing mapper, my mistake. We are planning on deleting EFH from the Final Level 2 Screening anyhow per your recommendation, so it would make sense to remove it from the mapper. We do, however, plan on capturing your recommendations for how to discuss impacts to EFH in the narrative of the Final PEL Study. I hope that my misunderstanding about the mapper don't lead you to think that we didn't understand your overall messages. We valued you and Linda taking time to discuss the issues with us. Apologies for the confusion. Theresa	4/3/2024	T. Dutchuk	Advisory Committee Meeting 5

4/7/2024	Mary Glaves | Alaska Chapter Coordinator Backcountry Hunters & Anglers	Good evening, Please find the Alaska Chapter of BHA's comments on the Juneau Douglas North Crossing PEL study. Thank you for the opportunity to comment. All the best, See letter dated 4/7/2024 Additional Comment Good morning, Morgan, I really appreciate you getting back to me on this. Thank you,	Good morning, Mary, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/8/2024	M. McCammon	
4/7/2024	Ron Somerville, MWSG	Morgan, sorry for the delay but we have been pushing hard to finalize our comments before April 11. Our next meeting is April 9 when we hope to finalize ours. We have agreed that a meeting with your staff on Wednesday, Thursday or Friday would be great for us. Let us know what date is best for you. If possible, we would like a couple of hours to explore several avenues. Thanks for the contact and offer.	Morgan sent an invitation to meet with the Group. Met with MWSG on 4/10/2024	4/8/2024	M. McCammon	Advisory Committee Comment

4/10/2024	Matt Robus, MWSG	Good afternoon, Morgan, On behalf of the Mendenhall Wetlands Study Group I am transmitting our comments on the PEL Study Level 2 Screening results for the Juneau-Douglas North Crossing project. I've tried to copy members of the PEL team but would appreciate you routing it as appropriate. Thank you for the opportunity to comment. Mendenhall Wetlands Study Group See letter dated 4/10/2024	Good afternoon, Matt and Mendenhall Wetlands Study Group members, Thank you for providing comments. Additional response in Level 2 Screening Met with MWSG on 4/10/2024	4/10/2024	M. McCammon	Advisory Committee Meeting 5
4/10/2024	Catherine Pohl, MWSG	Finally, the word on nests vs hotspots. They mislabeled it as nests. And as hotspots. It is just random ebird checklists, though they are calling it ebird hotspots. They don't know what they have for data or how to use it properly. Total screw up.	Hi Catherine, Thank you for the clarification. We appreciate your attendance at today's small group meeting. Met with MWSG on 4/10/2024	4/10/2024	M. McCammon	Advisory Committee Meeting 5

4/10/2024	Catherine Pohl, MWSG	Thanks for the opportunity to meet via web. Yes, nice to have some clarification, if you can call it that. So, for the record, we have determined that your "nests" are not nests, and your ebird "Hotspots" are not eBird hotspots, at least not the community-based hotspots shown on the ebird portal. And they are also not Armstrong et al. Hotspots, just random bird observations of any number of any species arbitrarily given a 500 foot buffer. How did you determine these points to be a measure of "important bird habitat"? The points you circled indicate that birders use the area, but in themselves nothing about the numbers or types of birds. You need a more specific query of that data source to get the information you need. And for the record, I don't appreciate being stonewalled on this and other questions. I asked about this several times before because it was obvious then that you had a big problem with your bird habitat ratings and criteria. Bird habitat is the KEY VALUE of the refuge, and the refuge habitat and use is the KEY SITING CONSIDERATION. It is concerning to see the chaos, poor communication, and lack of understanding of resources, data and its appropriate use, especially after our diligent attempts to point you toward the available data sources. I should not have had to grill your team repeatedly to get a correct answer. Was your biologist (again?) instructed not to speak? Why did I have to ask so many times? And why was this question not answered before in my communications with	The study team met with the Mendenhall Wetlands Study Group on 4/10/2024 to discuss these and other questions and comments. Additional response in Level 2 Screening			Advisory Committee Meeting 5

		DOWL/DOT? Today's meeting again left the impression that the resource staff are muzzled, that information is being withheld or even manipulated. And even when they finally spoke up, their answer indicated that no one on the team understands the data or how to use it and that the various parties – GIS, biologist, NEPA specialist-- are not communicating. That is, well, astonishing. This must not be a high priority project for DOWL. If you need me to demonstrate with a shared screen, I can show your biology staff a simple way to find ebird observations on seasonal habitat use by flocks of waterfowl. Or one could just read the ebird website. hint: click on explore species, use the key species for that site (Canada Goose, Vancouver Canada Goose, Mallard), set your seasonal and overall date intervals, and bingo-- there it is. Or one could do automated queries, as apparently you had attempted (or someone did this for your group and then wasn't available to show how to use it?) In our comments, we also provide a map that shows polygons that represent survey areas from the Armstrong et al Hotspots survey, the other key data source. This shows what areas are associated with the Hotspot survey points indicated in the report. We can provide the raw data table of observation keyed to those areas, as I told your group last year. We can also provide photographs of flocks at some of these locations. For the Douglas side of the Sunny alignments, it is best to rely on bird use of similar areas of the refuge-- that is also spelled out in our comments and was recommended by Parametrix (see their report)– as that area doesn't have a lot of data.				

		For the record, DOWL did not answer the question about a whole new set of alignment drawings that were not on the shared map materials until a few days ago via your data portal. Theresa could have opened the portal and displayed the fill footprints for impervious surfaces. These show smaller fill areas at some interchanges, and pilings over the rest, and may be what you actually used for wetland impacts etc. It would have been helpful to share these earlier when we had time to use them, and to explain that these are the areas used to calculate acreages rather than leave us guessing. You apparently consider there is no wetland or other impact from miles of pilings, or even from the larger interchange areas shared earlier.				
4/11/2024	Margaret Custer · Executive Director Southeast Alaska Land Trust	Hello all, SEALT submits the attached comments on the JDNC PEL Study Level 2 Screening. Best regards, See letter dated 4/11/2024	Good afternoon, Margaret, Thank you for providing comments. Additional response in Level 2 Screening	4/11/2024	M. McCammon	Advisory Committee Meeting 5

4/11/2024	Sarah Markegard (she/her) Fish and Wildlife Biologist Southern Alaska Fish and Wildlife Field Office Alaska Region | U.S. Fish and Wildlife Service	Hello Morgan, Please see the attached US Fish and Wildlife Service comments regarding Level 2 Screening for the JDNC PEL Study. Don't hesitate to reach out if you have questions or need clarity on anything. Thank you, See letter dated 4/11/2024	Good morning, Sarah, Thank you for providing comments. Additional response in Level 2 Screening	4/12/2024	M. McCammon	Advisory Committee Meeting 5
4/11/2024	Kate Kanouse Southeast Regional Supervisor ADF&G Habitat Section - Region 1	Hi Greg, Attached are ADF&G's comments on the draft Level 2 PEL documents provided for the Juneau-Douglas Crossing project review. See letter dated 4/11/2024	Good morning, Kate, Thank you for providing comments. Additional response in Level 2 Screening	4/12/2024	M. McCammon	Advisory Committee Meeting 5

4/24/2024	Mary Glaves | Alaska Chapter Coordinator Backcountry Hunters & Anglers	Good morning, Morgan, I hope this note finds you well. I wanted to reach out and see if you're still accepting public comments on the JDNC as I see the comment button still works. I can't locate any firm timeline information at this time. Any clarifying information you have would be so appreciated. Thanks very much,	Good morning, Mary, We are accepting public comments throughout the PEL study. We expect the PEL study report to be completed this summer. I confirmed you are on the email list, so you should receive updates. Best regards, Morgan McCammon	4/24/2024	M. McCammon	
4/26/2024	Catherine Pohl, MWSG	Hello Morgan, This is a followup to the recent meeting with MWSG members. We still have not received an adequate answer regarding what the bird data points and acreages in your PEL analysis represent. At the meeting, DOWL acknowledge that they are ebird observation locations rather than nests or ebird hotspots. I have pulled all ebird observations from the ebird data portal, however, and your points are only a subset of the available ebird observations. Our long-voiced question regarding the bird data therefore remains unanswered. Specifically: --What are the bird data points? Please provide information on how bird observation points displayed in your online data portal were selected from the ebird database. You are missing points close to the alignment at the tip of Sunny Point, for example; these points represent flocks of hundreds of geese and mallards. To answer this question, you will need to forward it to whomever downloaded and queried or filtered the ebird data. There are several kinds of points, including "historic, incidental, stationery, and traveling". Which of those did you include? Were there date, seasonal, or other criteria involved in	Hi Catherine, Thank you for following up. The study team members would like to meet with you again to further discuss your questions. Please let us know if you and any Mendenhall Wetlands Study Group members who would like to attend would be available any of the following times: • Friday, May 10, 9:30 a.m. to 12:00 p.m. • Wednesday. May 15, 1:00 to 5:00 p.m. • Friday, May 17, 9:00 a.m. to 12:00 p.m. or 3:00 to 4:00 p.m. We welcome any data or shape files you would like to share. If these are too large to send over email, let me know and I can initiate a file transfer request. Thank you, Morgan McCammon	5/7/2024	M. McCammon	Advisory Committee Meeting 5

		your selection? From what I can see, you have included older incidental observations, such as that of a yellow rail that spent time there in 1970, but you omit large numbers of commonly observed species along the alignment. --In using these points, how do you account for impacts from the piling and elevated structures and the disturbed areas within and near them? Were you calculating acreages only where your "buffers" intersect with the "impervious surface" footprint, or the entire alignment? Are habitat impacts from piling and elevated structures omitted entirely from your habitat, intertidal, and wetlands analysis? If so, what is the justification for that? --Why did you put only a 500-foot buffer around points, and what will be done to correct this in the next draft? We did not get an answer regarding why you put a 500-foot buffer on the points. As ADF&G pointed out, this can be small even for nests. For most ebird (non-nest) observations, a 500 foot buffer does not make sense at all. As noted in our meeting and in the MWSG comments, the spatial accuracy of the points themselves would rarely be that precise, and the observation areas they represent in this kind of habitat are usually much larger. Those who provide and use ebird data understand that they can refer to large areas, and the location description or comment field provide additional information. An assumption of a very large area is most reasonable here, especially given the open				

		habitat used by large flocks of disturbance-sensitive species and a label such as "Mendenhall Wetlands, Sunny Point". If you are using ebird data for impact analysis, you will need to apply it to much larger areas, for example, the whole Sunny Point area out to the first island would be reasonable for most observations in that area. I am happy to provide my data pull for the Mendenhall Wetlands IBA so you can compare it to your own if that would be helpful, or you could send me yours and I will try to figure out what subset it represents if this information has been lost. Or, if you are going to use ebird data for your next draft analysis, you could repeat your data request to ebird and download the entire Juneau dataset or perhaps just the past 1 to 3 decades. You can then select only the Mendenhall Wetlands using the IBA field (with R or Excel) to reduce the file size before converting to a shapefile. As noted in 2023 correspondence, raw data is also available for the 2004 Hotspots survey by Armstrong et al. I can provide this and the associated survey area shapefiles if you would like to include these observations in your analysis as well.				

4/27/2024	Ryan Schuman	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Schuman, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/27/2024	Rory O'Hanrahan	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. O'Hanrahan, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/27/2024	Justin McNeill	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. McNeill, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/27/2024	Jeff Knisley	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Knisley, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/27/2024	Samuel Fisher	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Fisher, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/27/2024	Brandon McGuire	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. McGuire, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

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4/28/2024	K. Murphy	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Murphy, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

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4/28/2024	Francis Adams	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is an outright threat to conservation, hunting, and angling. We also have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that is standard to determine the impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Adams, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	4/29/2024	M. McCammon	

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5/1/2024	Ben Rusch	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Rusch, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/2/2024	M. McCammon	

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5/1/2024	Jeffrey White	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. White, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/2/2024	M. McCammon	

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5/1/2024	William Krause	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Krause, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/2/2024	M. McCammon	

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5/1/2024	George Krumm	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Krumm, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	5/2/2024	M. McCammon	

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5/1/2024	Michael Carroll	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Carroll, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	5/2/2024	M. McCammon	

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5/1/2024	Matt DeAmico	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. DiAmico, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	5/2/2024	M. McCammon	

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5/1/2024	Benjamin Strand	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Strand, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	5/2/2024	M. McCammon	

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5/1/2024	Alison Fuchs	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Ms. Fuchs, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	5/2/2024	M. McCammon	

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5/1/2024	Scott Boggs	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Boggs, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/2/2024	M. McCammon	

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5/2/2024	Mike Fenimore	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good afternoon, Mr. Fenimore, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/3/2024	M. McCammon	

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5/3/2024	Nathan Peterson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Peterson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/6/2024	M. McCammon	

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5/3/2024	Kelsey DeCamillis	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Ms. DeCamillis, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/6/2024	M. McCammon	

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5/3/2024	Jeff Olson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Olson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/6/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

5/7/2024	Catherine Pohl, MWSG	That timing is fine for me-- with a couple caveats. For efficiency and to respect our efforts to date, I ask that DOWL or DOT first answer the last round of questions in writing prior to the meeting to the extent they can, and that the biologists and GIS folk who did the bird habitat analysis are present at the meeting and allowed to speak freely (eg. answer questions the first time). Regarding the bird data-- It would be helpful for you to send me your shapefile of eBird data so we can confirm what it is, or you could provide the password to your data portal so that we can see more than the topmost record. (It seems most likely that you used the sample data file provided with the data query rather than the data file itself.) In any case, you are probably best served re-doing your own eBird queries at this point, although we can talk about next steps and how your next analysis should be shaped and guided. On the 10th, I can do a screen-share illustrating what the eBird dataset looks like for the project area if you don't yet have that, especially when queried for large flocks of key species. Regarding other data and next steps-- Agency biologists should be involved in this discussion. This may affect your scheduling. --For the habitat map that is currently in draft, you should be talking with SEALT and/or ADF&G. --For use of bird, hunter, access, and wetland data, you should be in touch with ADF&G staff. --For use of the USFWS HotSpots (and perhaps previous Caine et al data), you should be in touch with the study authors and with USFWS staff, including Michelle Kissling and Steve Lewis of	Good afternoon, Catherine, We appreciate your detailed recommendations; however, we will not be able to accommodate these requests prior to the scheduled meeting on Friday, so I will cancel the meeting. We will consider these requests as we update and finalize the level 2 screening. Many of these additional steps would be best considered during a potential future NEPA analysis and will be noted. Another comment period and a public open house will occur this summer for the draft PEL study report. Additional response in Level 2 Screening	5/8/2024	M. McCammon	Advisory Committee Meeting 5

		Juneau. I can provide what I have along with shapefiles that roughly indicate surveyed areas but would want to be assured that there is a plan for appropriate and meaningful use of the data. --The AK Shorebird Working Group, Boreal Partners In Flight, and the USFWS Anchorage Migratory Bird Management and Ecological Services may also be able to offer input or review regarding meaningful and acceptable uses of these and other data. Given all of this, you may be best guided in your next steps by a panel that includes current agency biologists and resource managers as well as others with the needed expertise. You will also need to have staff with enough wildlife background to appropriately interpret and use habitat and species data in context of its importance to the community and to the state and federal minimization and avoidance requirements regarding refuges and wetlands. In the meantime, I look forward to your response to our questions below. Best,				
5/7/2024	Catherine Pohl, MWSG	On my computer it is saying 5:30 pm.... Please note caveats in my response--- It is essential that DOWL/DOT answers our questions in writing before the meeting to the extent you can and that the biologists and GIS folk are there and free to speak. My attendance is conditional on DOWL/DOT doing its part; we have done ours. Also-- can we share screens? Will you send over your eBird data file? Can you share the data portal password for more complete viewing?	Meeting canceled Additional response in Level 2 Screening	5/8/2024	M. McCammon	Advisory Committee Meeting 5

5/7/2024	John Plett	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Plett, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/8/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

5/7/2024	Camden Erickson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Camden, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	5/8/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

5/7/2024	Catherine Pohl, MWSG	Hello Morgan, I asked the following questions: --What are the bird data points? --In using these points, how do you account for impacts from the piling and elevated structures and the disturbed areas within and near them? --Why did you put only a 500-foot buffer around points, and what will be done to correct this in the next draft? Perhaps you can reschedule the meeting for one of the other times you suggested if these 3 questions can't be answered prior to Friday. You will need to answer these during the PEL study in any case; there is no possible justification for waiting for NEPA to provide these simple answers. Or, if DOWL staff can and will answer these at the meeting to the extent you can, instead of prior, I will attend and you may schedule for Friday as planned. I can screen-share bird data files, and we can talk about how the pertinent files may be obtained or shared and conditions for same. It has become clear that you need to correct your analysis in order to proceed-- a simple re-labeling of the data will not suffice. You are using an incomplete and therefore still mislabeled dataset, perhaps only the first few hundred records of eBird for the area, representing a smattering of incidental historical records.	Good afternoon, Catherine, Ron, and Matt, Please continue to direct comments and questions to DOWL and DOT&PF, as this is the study leadership team responsible for all work products. We will not be able to provide written answers to advisory committee member comments and questions at this time as we are working through all comments received in the latest advisory committee comment period on level 2 screening preliminary results. We will coordinate meeting schedules with the environmental study team members and will reach out with some new times in the next month when we are able to adequately answer your questions prior to level 2 screening being finalized. Thank you, Additional response in Level 2 Screening	5/9/2024	M. McCammon	Advisory Committee Meeting 5

		You are asking me for data files and to discuss these questions with you; it is reasonable for me to ask for answers to the extent that you have them, as well as discussion. That is simple good faith. You will remember that at our last meeting, I had to ask many times in order to get a correct answer to a very simple question. It is reasonable for me to ask that those who can answer these questions are present and allowed to speak in a timely fashion. Let's all meet on Friday and clear some of the haze surrounding your bird habitat analysis. Best, Additional Response Thanks Morgan . We will regroup and get our heads together to decide on the next points of contact with DOWL. Ron				

5/9/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game		I received a call this morning from Sue Rodman with ADF&G. She was calling on behalf of the Mendenhall Wetlands Study Group. She suggested meeting with this group tomorrow or another time before the level 2 screening was finalized. She also wanted to go on record as saying she thought the alternatives under consideration now have been narrowed as much as possible and should all go through to a future NEPA process. I told her the study team has not finished level 2 screening and we had not yet determined the alternatives that would be recommended to move forward. She said she would also reach out to Greg.	5/9/2024	M. McCammon	Advisory Committee Meeting 5
5/9/2024	Catherine Pohl, MWSG	To Parametrix: I have a few questions about the bird impact analysis for the Juneau Douglas (AK) North Crossing PEL. I see that your firm did some technical reports for them and may have contributed data, a subset of which they may have later used for their draft rating. I am informally helping DOWL via a technical advisory group. You can reach me at [redacted].	Parametrix requested not to respond, DOWL would respond			

5/9/2024	Sue Rodman Statewide Lands and Refuges Program Coordinator Division of Wildlife Conservation Alaska Department of Fish & Game	Hi Christy, My intent is to ease some of the concerns of our stakeholders to the Mendenhall Wetlands State Game Refuge and the wetlands in general. We are aware that the requested meeting with the Mendenhall Wetlands Study Group and Dowl was cancelled for tomorrow because of the detailed questions Dowl was not ready to respond to. I had a conversation with Morgan McCammon. She acknowledged that Dowl is not in a position to commit to retaining all crossing options at this time. We discussed the request to retain all crossing options currently on the table for the NEPA process where a robust and scientifically valid assessment can be conducted, since the data and analysis conducted for the PEL study's Level II Screening was insufficient biologically. Regarding the cancellation of tomorrow's meeting, she suggested that Dowl meets with MWSG once they have a chance to review and provide responses to the questions presented. They are revising their Level II Screening study to accommodate comments received (the letters we all sent by April 11). I'm hoping that Dowl will still meet with MWSG soon so that these concerns can be aired. These dedicated scientists have a strong educated and experienced group that is important for conservation efforts. It seems that closer engagement with stakeholders provides a more positive process and outcome. It appears that this JNDC PEL does not do that to the extent that DOT is providing this outreach and engagement for the Safer Seward Highway project in Anchorage through HDR. Process is such a key element of any	Hi Sue, Thank you for reaching out. We will meet with the group before the level 2 screening is finalized but it will need to be postponed in order for the project team to be able to answer all of their questions. It's taking time to work through all the comments received in response to the level 2 screening and we want to make sure we can adequately address them when meeting. We don't have an estimated date to meet with them yet but I expect our team will be able to do reschedule in the next month or so. Thank you again! Christy Gentemann Regional Environmental Manager, Southcoast Region Alaska Department of Transportation & Public Facilities Additional response in Level 2 Screening	5/9/2024	C. Gentemann	Advisory Committee Meeting 5

		big project; we as government continue to re-learn this lesson when we don't allow for the needed communication. Thank you for your consideration and keeping us in the loop on where we can support the process with our stakeholders; they are a critical component to maintaining the refuge system statewide and Mendenhall Wetlands play an important role in the Juneau area for wildlife, ecology, and the people. Thank you,				

6/11/2024	Dominick Phillips	Hello, I am contacting you all to please look into the potential negative impacts to the Mendenhall wetlands before deciding a second bridge location. The Mendenhall wetlands is a crucial habitat for salmon and migratory birds. A change or decrease in habitat could alter migratory birds flight paths, or prevent them from stopping and increase in mortality. Bridges and impoundments over shallow bodies of water have also been known to have negative impacts on salmon returns. A second bridge may decrease public access to local hunters and fishers. With the rights and public access of hunters and fishing people always being infringed an increase in that is not a good thing. I am not against a second bridge just against a decrease in Americas dwindling wetland habitat. Please let me know if you have any questions or if i could assist in this area of study in any way. I do have a degree in Watershed Management and have a diverse scientific background and may be able to help. Thank you,	Good morning, Mr. Phillips, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	6/13/2024	M. McCammon	

6/14/2024	Wendy Hogins	This is a repeat comment from several months ago. There is no information on the project web site that supports the p&n statement “analyses indicate that the intersections operate at or near capacity during peak travel times”. Presuming level of service is a reasonable measure of intersection performance, what is the level of service for the intersections existing condition, no build, and the various alternatives? In any case,there is no information demonstrating the project addresses an existing vehicle transportation deficiency. Further, to aid a reader to better understand scale of the problem-what constitutes “peak travel times” in terms of time of day and duration of occurrence. Traffic volume data(hourly?) should be provided as support	Good afternoon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments and questions with the project team and will send responses soon. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Additional Response Hi Wendy, According to the Bridge Volume to Capacity of the Existing Juneau-Douglas Bridge Memo, found at https://www.jdnorthcrossing.com/documents.html, the Egan Drive/10th Street intersection "operates at a level of service (LOS) D during both the morning and evening peak hours" under existing conditions. Similarly, the Douglas Highway/Juneau-Douglas Bridge roundabout "operates at LOS E during the AM peak and LOS D or better during the PM peak" under existing conditions. By 2050, both intersections are expected to deteriorate in the AM peak hour to LOS E and LOS F, respectively. The Juneau-Douglas Bridge from a planning level Q/LOS analysis operates under capacity (LOS D) today. However, by 2050 (assuming a minimal 0.25%/year growth rate) "the bridge will operate at or near capacity" (worse than LOS E). The LOS is a letter grade that estimates the amount of time a person could spend waiting at the intersections or traveling across the Juneau-Douglas Bridge. DOT&PF policy is to maintain a LOS of D or better. If you have any further questions, please feel free	6/25/2024	M. McCammon	

			to reach out. Thank you, Morgan McCammon			

6/18/2024	Matt Robus, MWSG	Good Morning Morgan- Please forward as appropriate to Juneau North Crossing PEL team members. Thanks - Matt Robus Dear Juneau North Crossing PEL team: The Mendenhall Wetlands Study Group (MWSG) consists of more than 20 Juneau wetlands specialists, former state and federal fish and wildlife employees, habitat professionals, and local conservation organization leaders. The MWSG was formed when it became apparent that a new effort to plan a crossing between mainland Juneau and Douglas Island was imminent, and has been a participant as an advisory group member since the inception of the PEL process. As you know, the MWSG strongly believes a scientifically accurate analysis of wetland resources and uses is essential to providing a credible comparison of the alternative crossing locations and designs in terms of their impacts to the resources and to the integrity of the Mendenhall Wetlands State Game Refuge, and is paramount for making wise choices for North Crossing routes. This letter is to transmit our summary (attached) of our meeting on May 23, 2024 at which we discussed many of the concerns expressed by the MWSG in our comments on the preliminary Level 2 screening presented to the PEL advisory groups. Our purpose in creating this summary is to document what we learned at the meeting, and also issues which weren't addressed, and/or which will require more work. Thank you again for meeting with us. Please contact Ron Somerville (somerville@gci.net) if you have questions or disagreement with the attached	Good morning, Matt, Thank you for sharing your comments and meeting summary. I am sharing these with the rest of the team. Additional response in Level 2 Screening	6/18/2024	M. McCammon	Advisory Committee Meeting 5

		meeting summary. On behalf of the MWSG, See letter dated 6/18/2024				

6/20/2024	Rance Brooks | Project Manager, Goldbelt	Morgan, My last day with Goldbelt, Inc is this Friday (6/21/2024). Moving forward, Goldbelt requests that my colleague, Skiba (copied on this email), be included in the advisory committee meetings and any associated meetings. Thank You,	Good morning, Rance. Thank you for sharing this information. We wish you the best in your future endeavors. Hi Skiba. I will update the Stakeholder Advisory Committee list with your contact information. Please let me know if you have any questions regarding progress of the PEL study. The website has documents on the tasks completed so far: https://www.jdnorthcrossing.com/. Thank you, Morgan McCammon	6/20/2024	M. McCammon	Advisory Committee Comment

7/10/2024	Norman Hoppas	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Hoppas, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	7/11/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

7/16/2024	Emily Bos	Good afternoon, We moved to 8480 N Douglas in 2020, seeking some open space and land for my husband to start building his farm, a lifelong dream of his. Shortly after moving in, we started to hear rumblings about a second bridge crossing. We have been slowing developing our dream, my husband specifically, spending hundreds of hours cultivating our land. We have been watching the developments about the second crossing closely, holding our breath about whether or not, one day the city will come in to take back our land to make room for the bridge. The most recent article posted is the Juneau Empire sites that the Sunny point options have the highest scores. These options are the 2 that come directly to our home. As you can imaging, the decision about where the second bridge will go has immediate and direct influence on how and if we spend time further cultivating our land in the next 5-8 years. I know this project has an extended timeline, but we need to know if our house will be directly impacted if sunny point is the final location chosen. I acknowledge that the decision is a long ways out, but I assume that a detailed map of where the bridges will go already exists. I have seen mile 6 mentioned as the Douglas side terminus for both Sunny Point options. Is the 6 mile marker? Is it 5.8 miles? Do you have more specifics on this? If our house is impacted by the second bridge, when would we expect to be hearing from the city?	Good afternoon, Emily, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team. The study team is still reassessing the alternative screening in response to agency comments and additional coordination is needed before the draft screening and scoring will be available for public review. The draft PEL study and screening results are expected to be complete in September or October 2024. At that time, we will make these documents available for public review and comment. The PEL study will not identify specific properties as being impacted since no single alternative will be selected during this study. Each alternative has different potential property impacts that will be evaluated in a future environmental documentation effort in accordance with National Environmental Policy Act. These processes will provide many opportunities for additional public comments. The environmental documentation phase is planned to begin in late 2024 or 2025 and will likely take 2-3 years to complete. Please continue to visit the website at http://www.jdnorthcrossing.com/ for the latest information on the PEL study and continue to send any additional comments and questions to JDNorthCrossing@dowl.com. Best regards, Morgan McCammon	7/17/2024	M. McCammon	

		Thank you for your time addressing my questions.				

7/21/2024	Curtis Branson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Branson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	7/22/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

8/1/2024	Ron Somerville, MWSG	Morgan, the Mendenhall Wetlands study group is trying to set up its schedule this summer and early fall for a variety of purposes. Some have to do with family schedules and personal schedules like vacation plans, fishing and/or hunting trips, etc. We have been waiting for DOWL's next release of potential final channel crossing options (I assume is Tier 3). As this process appears to be way behind in its scheduled releases, can you give us the new target date for the next release? I appreciate your help here. Many Thanks	Ron Somerville called me to ask for an update as they are meeting today. I shared that the DOT&PF is consulting with the SEO and AG, and that we do not yet have dates for the release of the final PEL report. He requested the comment period for this report be extended to 45-60 days, rather than 30 days, because they do not think that is enough time for them to review and provide comments without knowing ahead of time the exact timeline. He also shared the MWSG was providing the documents they shared with the PEL study team with others who requested those. Morgan McCammon	8/1/2024	M. McCammon	Advisory Committee Comment

8/23/2024	Ron Somerville, MWSG	Hi: This is a short email to advise that a Second Channel Crossing PUBLIC FORUM is scheduled for September 23rd, 2024 in Juneau at the Elizabeth Peratrovich Hall starting at 6:00 PM. This forum is being sponsored by the Territorial Sportsmen (TSI) and organized by the Mendenhall Wetlands Study Group (MWSG). The membership of TSI has complained about the lack of information being released to the public on the potential location and structure of the crossing. The MWSG was created to participate fully in the review and selection process. The purpose of the Forum is to inform the public on the study and review process and provide a chance for the public to ask questions of the organizations and agencies involved. We have provided space for the major players in this process to explain their involvement, reviews and justifications. Please review this proposed schedule and advise me of any proposed changes. We welcome your participation and thank you for your consideration of this public forum in your schedule. Letting us know who will be representing you or your organization would be appreciated. We will provide space for handouts and other public information distribution. We also encourage the use of slides in your presentations as computer access will be available. We will be distributing fliers and a final outline when it is available. Thank You	See response 9/5/2024			Advisory Committee Comment

8/30/2024	Ron Somerville, MWSG	Morgan, I am checking to see who might be assigned to participate in the Public Forum scheduled for September 23rd here in Juneau. I would like to include the names in our fliers and ads. So far we have received enthusiastic responses and public support. As of this time we are anticipating 150 to 200 attendees. I am attaching, again, a copy of our rough draft of the public forum schedule. Thanks	See response 9/5/2024			Advisory Committee Comment
9/3/2024	Ron Somerville, MWSG	Thanks for the letter Morgan. By the way would you please acknowledge you received our request for DOWL to participate in our public forum on Sept. 23rd. here in Juneau? Would like to know who would be representing DOWL.	Good morning, Ron, Thank you for the invitation. We will respond when the Department of Transportation & Public Facilities Project Manager returns from leave. Morgan McCammon	9/5/2024	M. McCammon	Advisory Committee Comment

9/12/2024	Ron Somerville, MWSG	Morgan, I am not trying to be a pest but we need to know if DOWL is going to be sending someone to make your presentation at the Public Forum scheduled for the 23rd this month. I need the name and email address to make sure all event schedules and hall requirements are met. Any screen requirements will have a tight schedule as well . If you are not going to participate, we will have someone summarize your process and documents as best we can. Letting us know your intentions would be helpful in making sure that the public is adequately informed on this important matter. ADDITIONAL RESPONSE Thanks for the notice Morgan. I find it somewhat interesting that DOWL refuses to participate in a widely advertised public meeting just because it was sponsored and paid for by a public organization. Our letter inviting the Governor will highlight the refusal to attend a public meeting potentially attracting over 100 Juneau residents to discuss the details affecting the selection of a project potentially costing near $400 Million - $500 Million with significant impacts on all Juneau residents and many statewide taxpayers looking for limited Highway funds for statewide projects. In addition, DOWL and DOTPF have staff in Juneau that could conveniently attend this forum. We have given DOWL and ADOTPF the opportunity to participate in the design of this meeting with a long planning period. Yes, some controversial issues will most certainly be raised. It seems beneficial, however, to discuss these issues now before the final Level 3 decisions are made and we enter NEPA requirements.	Good afternoon, Ron, Thank you for your patience and the invitation to the September 23 public forum. The Department of Transportation and Public Facilities has elected not to participate in this forum at this time. We will host a joint advisory committee meeting in the months to come where we will provide more updates. We will inform the advisory committees of the date as soon as it is scheduled. Best regards, Morgan McCammon	9/12/2024	M. McCammon	Advisory Committee Comment

		Again, I appreciate your responding to my reminder. Ron Somerville				
9/18/2024	Anna Kenny	Hello, my name is Anna Kenny. I'm a reporter with KTOLO. We're a radio station in Juneau and I'm working on a story about our proposed second crossing project which that was involved in. I believe Steve Noble is the project manager. I have a few questions about that study and was hoping to set up an so I got transferred to this number. I don't know if you can help with that, but if you can put me in touch with Greg or someone on that project	DOT&PF to respond	9/19/2024	G. Lockwood	

		team who can speak to me, then you can reach me back at [redacted]. Thanks so much.				
9/20/2024	Tasha Waters	Maybe there should be more crosswalks on Douglas Island.	Good morning, Tasha, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	9/23/2024	M. McCammon	
9/21/2024	Steve Behnke	Could you please point me to any materials that discuss the carbon emissions impacts, including embedded carbon, of the 2nd crossing alternatives. Thanks,	Good day, Steve, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. At this point in the study, specific carbon emissions impacts are not identified. These will be thoroughly evaluated during a future National Environmental Policy Act, or NEPA, process. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	9/26/2024	M. McCammon	

9/23/2024	Emily Bos	Are you able to answer the specific question of when a final determination will be made and when will residents be notified that they will be impacted? All of the PEL maps shows that my house will be affected if either sunny point option is selected. Thanks	Good day, Emily, We understand you are concerned about your home, and we are working to maintain current information on the project website to keep the public apprised of the project progress. The PEL study is not anticipated to identify a single alternative. The range of alternatives moving forward out of this PEL study may include the East and West Sunny Point alternatives as well as 2-3 others. The footprint of proposed alternatives is not well defined and is subject to modifications based on public input, engineering modifications, and avoidance of environmental impacts. Alternatives that are recommended for further study will be studied at a much greater level of detail as part of the future environmental documentation effort in accordance with National Environmental Policy Act, or NEPA. Only then will a single preferred alternative be selected, and the level of detail be sufficient to identify impacts to specific properties. Your comments and concerns shared during this PEL study will be taken into consideration as we finish up the PEL Study. An open house will be held with an opportunity to comment on the alternatives at the Draft PEL Study completion stage. Currently, we anticipate that open house to be sometime this winter. Please continue to visit the website at http://www.jdnorthcrossing.com/ for the latest information on the PEL study and continue to send any additional comments and questions to JDNorthCrossing@dowl.com. Thank you, Morgan McCammon	9/26/2024	M. McCammon	

9/24/2024	Ethan Bell	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Bell, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	9/26/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

9/26/2024	Barb Mecum	Hi Bridget, Really appreciated having a chance to speak with you! Thanks for sending the links and Summery Memo along, very helpful. Attaching the Friends of Fritz Cove Petition. As I mentioned, we have shared our Petition with DOWL, DOT, Mayor, City Manager, and Assembly. Let me know if you have any questions. Thank you! Barb On Thu, Sep 19, 2024 at 12:30 PM Bridget LaPenter <Bridget.LaPenter@juneau.gov> wrote: Nice speaking with you today, Barb. Here is the link to the plans and studies on the CBJ website: https://juneau.org/community-development/plans-studies This is the link to the 1997 study. I've attached the Agnew::Beck NW Douglas Sub Area Study Housing Need and Residential Financial Feasibility Findings summary memo. Please let me know if you have any additional questions. Bridget LaPenter, P.E. | Chief GE Engineer General Engineering Department | City & Borough of Juneau, AK	Phone conversation	9/26/2024	B. LaPenter, CBJ	

10/1/2024	Sen. Jesse Kiehl	Morgan, I'll be out of state that week. I plan to have a member of my staff attend. Do you need their name and details or can they just use my zoom link? Thanks! Additional Comment It'll be Cathy Schlingheyde from my team. Thanks! - Jesse	Good afternoon, Senator Kiehl, If you would, please send the name of your staffer who plans to attend for our records. They can use the Zoom link. Thank you, Morgan McCammon	10/1/2024	M. McCammon	Advisory Committee Comment
10/2/2024	Ed Schoenfeld	Is this a public meeting or just for committee members?	Good afternoon, Ed, This meeting is intended for Advisory Committee Members or their alternates. A public meeting will be held when a draft of the PEL study is ready for public review. Thank you, Morgan McCammon	10/3/2024	M. McCammon	Advisory Committee Comment
10/3/2024	Teri Tibbett	Hi Molly, Is it okay to post this on a public forum, or is this meeting only for assigned advisory committee meetings? Thanks! Apologies, I meant is it only for assigned committee "members." :-)	Good afternoon, Teri, This meeting is intended for Advisory Committee Members or their alternates. A public meeting will be held when a draft of the PEL study is ready for public review. Thank you, Morgan McCammon	10/3/2024	M. McCammon	Advisory Committee Comment

10/12/2024	Doreen Prieto	Dear Mr. : My name is Doreen Prieto. I emphatically support the statement from BHA that follows. I am dismayed with the stance taken by CBJ AKDOT and DOWL regarding a Second Crossing. I would like you to know that I am ADAMANTLY opposed to any Second Crossing through the Mendenhall Wetlands. I strongly disagree with each proposal you put forth justifying such. I will join with every Community Member and Organization, including BHA and Southeast Alaska Land Trust. I am a volunteer Land Steward with SEALT and I steward the Honsinger Conserved Property.I survey and report about that property and its environs on a regular basis. I repeat- I ADAMANTLY oppose all proposals regarding any type of Second Crossing by CBJ AKDOT and DOWL. Respectfully Doreen Prieto Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife	Good afternoon, Ms. Prieto, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	10/14/2024	M. McCammon	

		and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

10/21/2024	Bob Saviers	Never received any response to my comments. Why is the north channel crossing even here? It's tied to a native corporation's well being for profit and cbj housing relief under a federal purpose and need? You're kidding? If it's at salmon creek or Vanderbilt then it's reasonable to tie two nhs highways together as a state project. Signed Ex dot employee.	Good afternoon, Mr. Saviers, Thank you for sharing your comments on the Juneau Douglas North Crossing PEL Study. The City and Borough of Juneau has partnered with DOT&PF to study a possible transportation corridor to connect Juneau with the north end of Douglas Island using a Planning and Environmental Linkages (PEL) Study. This process provides opportunities for public input and involvement, and the analyses conducted may be incorporated into a future National Environmental Policy Act (NEPA) process. The study team expects to recommend the alternatives moving forward in the PEL study report in winter/spring 2025. We will publicly notice the date for the final public meeting when it is scheduled. Best regards, Morgan McCammon	11/5/2024	M. McCammon	
11/5/2024	Michael Williamson| Project Manager | Goldbelt	Hi Morgan, Can you please add me to the north crossing distribution list? Thanks!	Good morning, Michael, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	11/5/2024	M. McCammon	

12/10/2024	Nicholas Berling	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Berling, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	12/11/2024	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

1/15/2025	Koi Woodson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Koi, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	1/16/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

1/19/2025	Catherine Pohl	Greetings, PEL team: At Zoom meetings with DOWL and DOT staff last spring, I asked questions regarding the PEL level 2 bird habitat impact maps and ratings. I asked what subset of eBird observation data was used for your assessment of impact acreage and related maps and ratings, how this subset was selected, and your rationale for this and for the use of a 500 ft buffer as an indicator of impact. Your project staff did not answer any of these questions. They said that they did not know the answers or "could not" answer, saying only that a GIS person not present may have been involved. A biologist or other analyst with knowledge of the method, its rationale, or data source was never identified or included in the various conversations. The questions were never answered in subsequent communications. You had stated in the spring at the last such conversation that the bird habitat analysis was being re-worked with a new approach and was under internal review. Nine months have passed without further update on this. Your inexplicably odd and erroneous bird habitat portrayal, as still presented to the public in your online GIS and referenced in your Sept. 2024 "update," remains very misleading and entirely unsupportable. --When will the expected revised habitat analysis and impact ratings be presented to stakeholders or the public for review? --If you have abandoned the previous bird habitat analysis in favor of a correction or another approach, why is the misleading map still being presented to the public? --Has your "new" approach received any preliminary agency or stakeholder review, or will it?	Good afternoon, Catherine, Thank you for your continued interest in the Juneau Douglas North Crossing PEL Study. In response to the Technical and Stakeholder Advisory Committee members' feedback and conversations with you and other members of the Mendenhall Wetlands Study Group, we revised the approach to the bird habitat analysis. This revision was verified as appropriate by the Department of Transportation and Public Facilities Statewide Environmental Office. The updated criteria include the entire Mendenhall Wetland State Game Refuge as important bird habitat. In response to your questions below, we offer the following responses: --When will the expected revised habitat analysis and impact ratings be presented to stakeholders or the public for review? The revised analysis will be shared at the upcoming advisory committee meeting on March 4 and then again at the public meeting later this spring. --If you have abandoned the previous bird habitat analysis in favor of a correction or another approach, why is the misleading map still being presented to the public? We are updating the webmapper to show the revised approach for scoring impacts to bird habitat, the revised method includes using the entire MWSGR as important bird habitat and no longer relies on the hotspots. --Has your "new" approach received any preliminary agency or stakeholder review, or will it?	2/3/2025	M. McCammon	

		I am familiar with the available bird and habitat data for this area and am happy to review your alternative analysis when it is available, either as an individual or through an advisory/stakeholder group. ADDITIONAL RESPONSE 'Thanks for your response, Morgan. Perhaps at this point we could stop referring to your GIS map bird points as "hotspots"... As was shown last spring, the eBird points on your GIS map are not a set of "eBird community birding hotspots", a complete set of eBird checklists posted to points in the project area, or actual hotspots of bird use identified in a 2003 study. Your online GIS map now labels your set of mystery points as eBird observations (not hotspots) but still fails to show a complete or credible set of such points, including the repeated observations of large flocks right along the alignments. The PEL process is designed to allow early incorporation of information, including environmental and other constraints and vulnerabilities, and recommendations from the pertinent stakeholder agencies and organizations. It would therefore be appropriate to run your new approach by stewarding agencies and organizations-- ADF&G, USFWS, ACOE, SEALT, and AK Audubon at a minimum-- before committing to it in your analysis. (While your statewide environmental office has expertise with permitting and compliance, its expertise with bird habitat assessment may be expected to be limited in comparison to that of ADF&G, USFWS, and other stakeholders. And clearly, you will not be able to differentiate alternatives meaningfully with one blanket level or type of habitat importance applied	The revised approach was recommended by the Statewide Environmental Office and as mentioned above will be discussed at the March 4 meeting. Additional field studies and analysis will take place by a selected contractor in a future environmental document phase prior to future design of a potential north crossing. Best regards,			

		across your entire project area.) You have said, however, that after meeting with advisory groups in March you will present the same information to the public, revealing that you are not planning on actually using responses from the advisory groups (or stewarding agencies) to revise your approach or ratings and again demonstrating that this PEL is a mock process rather than one that effectively uses the expertise it solicits.				

1/22/2025	Jess Krahn	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Jess, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	1/23/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

1/31/2025	Eric Forst	Hi Morgan, I got your contact info form Craig Dahl at the chamber. I am handling speakers for Glacier Valley Rotary and I am working on our schedule for the spring. I was hoping you would be able to come give our club an update on the second crossing once your study is released. We have open dates in April, May and June so whatever works for you, we can find you a slot. Our club meets at the airport on Wednesday's at noon. Please let me know if this is something you can help us with and what dates would be best for you! Thank you!	Good afternoon, Eric, Thank you for reaching out. The project team is interested in presenting to the Rotary following the open house, tentatively scheduled later this spring. We will reach back out once this meeting is scheduled to give the club an update. Thank you,	2/11/2025	M. McCammon	
2/4/2025	Dave Hanna		Good afternoon, Dave Hanna, Stakeholder Advisory Committee member representing Access Alaska (a group formed to encourage development of a road to Juneau and development within CBJ), called because he thought the meeting was today. I let him know it had been rescheduled for March 4 so we could share meeting materials in advance of the meeting. He thanked me and said he would participate then. I double checked the meeting notice, and it says March 4. Thank you,	2/4/2025	M. McCammon	Advisory Committee Comment

2/5/2025	John Block	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Block, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	2/6/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

2/11/2025	Travis Thompson	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Thompson, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	2/12/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				
2/12/2025	Craig E. Dahl Government Affairis Greater Juneau Chamber of	February 12, 2025 Greg Lockwood, Project Manager Department of Transportation & Public Facilities PO Box 112500 Juneau, AK 99811-2500 Re: Objection to Salmon Creek Alternative for North Crossing See letter dated 2/12/2025	Good morning, Craig, Thank you for providing comments from the Juneau Chamber. We appreciate your feedback and will include these in the final PEL study. Best regards, Additional response in Level 2 Screening	2/19/2025	M. McCammon	Advisory Committee Meeting No 7

	Commerce					
2/19/2025	Mark Steblein	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo	Good morning, Mr. Steblein, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	2/20/2025	M. McCammon	

		further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

2/25/2025	Hunter Lamer	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good afternoon, Mr. Lamer, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards, Morgan McCammon	2/26/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				
2/28/2025	Emily Wright City Attorney City and Borough of Juneau	State of Alaska Department of Transportation Attn: Christopher Goins CC: Commissioner Ryan Anderson, DOT&PF Commissioner Doug Vincent-Lang, ADF&G RE: Second Crossing PEL, Public Comment By City and Borough of Juneau See letter dated 2/28/2025	DOT&PF to respond			

3/4/2025	Jasz Garrett Reporter	Good morning Morgan, I'm a reporter at the Juneau Empire, and I was hoping you might have time to call me for a few minutes this morning. I was at an Assembly meeting last night, where they discussed the progress the PEL study is making. (It sounded like it had been completed?) I'm on a tight deadline, so please call as soon as you are free: [redacted]. Kind regards,	Greg Lockwood responded		G. Lockwood	
3/4/2025	Jasz Garrett Reporter	Good morning, Morgan. This is Jasz with the Juneau Empire. I'm working on a story about the update with the PEL study for the North crossing. If you could give me a call back at [redacted]. Thank you.	Greg Lockwood responded		G. Lockwood	
3/10/2025	Brian Holst (he) | Executive Director Juneau Economic Development Council	Please find attached comments from the Juneau Economic Development Council. Thank you, Brian See letter dated 3/7/2025	Good morning, Brian, Thank you for providing comments from the JEDC. We appreciate your feedback and will include these in the final PEL study. Best regards, Additional response in Level 2 Screening	3/14/2025	M. McCammon	Advisory Committee Meeting No 7
3/13/2025	Ron Somerville	Yeah, tell me. This is Ron Somerville, from the Mendenhall Wetland Study Group in Juneau. I'm trying to get ahold of Morgan, but apparently she's not available and they said I was going to your phone. Could you give me a call back? I have a request. My number is [redacted]. Thank you. Bye.	Hi, team, Ron called me this afternoon asking for the letter. I said the team is reviewing it and will send the meeting summary to the committees soon. He was concerned about transparency in that Steve mentioned the letter, but the committees had not yet seen it.	3/13/2025	M. McCammon	Advisory Committee Meeting No 7

3/18/2025	James McCutcheon	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. McCutcheon, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	3/19/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

3/18/2025	Catherine Pohl	Dear PEL team: I am writing as followup to the message below. Where is your new impact quantification and scoring scheme? How can the advisory groups comment on it without seeing it? We have only the overall scores, not the "revised analysis" promised in the message below. The advisory groups I am assisting have only a few days to prepare comments, so please provide this. For example, I do not see the re-scoring of bird or wetland habitat in the March 4 meeting minutes, other than that scores were weighted for areas within the refuge. What, exactly, does this mean? Bird habitat is scored for area affected within the refuge and then additionally weighted for being in the refuge? Is this also true for wetlands and intertidal habitat? Habitat outside the refuge is ignored, despite having protections under state and/or federal law? Oddly, the project proponents appear to be ignoring the overall scores in their decision-making, choosing to promote in advance of NEPA the selection of corridors within the refuge, including, and perhaps focusing on, those with the lowest scores. Thus the lengthy and expensive PEL project undertaken over several years with public funds has failed to screen alternatives by its own criteria or to contribute meaningfully to streamlining the subsequent NEPA review. Your assertion that there were "no outliers" to guide removal of alternatives does not make sense. Your definition and reliance on "outliers" is questionable. Some alternatives were clearly a	Hello, Catherine, Thank you for your continued engagement and extensive comments on this study. Please see the responses to your questions and comments: Where is your new impact quantification and scoring scheme? We have recently posted the Level 2 Screening Memorandum to the project website. It can be found here: https://www.jdnorthcrossing.com/documents/JDNC_L2_Screening_Summary_Memo_2.14.25.pdf or on the documents page: https://www.jdnorthcrossing.com/documents.html. I do not see the re-scoring of bird or wetland habitat in the March 4 meeting minutes, other than that scores were weighted for areas within the refuge. What, exactly, does this mean? Bird habitat is scored for area affected within the refuge and then additionally weighted for being in the refuge? Is this also true for wetlands and intertidal habitat? Habitat outside the refuge is ignored, despite having protections under state and/or federal law? The Advisory Committees and the DOT&PF's Statewide Environmental Office (SEO) provided feedback and recommendations on the draft Level 2 analysis. The most robust feedback sought increased focus on the importance of the Mendenhall Wetlands State Game Refuge (MWSGR) and the resources located within the Refuge (e.g., wetlands, bird habitat, intertidal habitat, etc.). Resources falling within the MWSGR were given greater weight as sought by Advisory Committee members and recommended by the	3/24/2025	M. McCammon	Advisory Committee Comment

		good deal worst overall. The ranking you have provided makes this clear, particularly for the very key habitat- and community-use related areas at the heart of the refuge. Extreme "outliers" may not be expected in any case given your very narrow range for scoring individual items (0 to -2 in many cases, if done similarly to your previous iteration). By any reasonable measure, your scoring indicates that the E&W Sunny and Vanderbilt alternatives should be removed from further consideration. The CBJ's recent letter to ADF&G does not make sense. Its timing is out of line with the sequence of both state and federal project review, and its logic is inconsistent with the facts as well as the ongoing application of T16 authority. Refuge management plans are adopted by reference under T16 authority. The refuge's plan identifies criteria for use of a transportation corridor. Such criteria are consistent with both T16 and the AK Constitution and slightly more specific; the criteria require use of a viable off-refuge alternative if one exists to meet the need, and in any case avoidance and minimization of impacts to habitat and use is required. These are similar to the applicable 4f requirements as well. The management plan transportation corridor criteria are not mere "guidance" but are the consistent criteria by which ADF&G must by law review a proposed transportation corridor. That was true when I reviewed and wrote permits for ADF&G and, as I understand it, is still the case. For the long run, the protection of refuge lands is a benefit to the community and state. Those who framed the constitution, wrote the Title 16 statutes into law, and established the refuge and refuge management plan under T16 authority understood	SEO. Resources outside the MWSGR continue to be considered. Your assertion that there were "no outliers" to guide removal of alternatives does not make sense. Your definition and reliance on "outliers" is questionable. All build alternatives reviewed under Level 2 Screening meet the Purpose & Need and have varying levels of constraints and impacts. The Level 2 Screening did not identify substantial impacts or constraints that were sufficiently outlying from the other alternatives to justify dismissal of any of the alternatives, except for the Mendenhall Peninsula Alternative which has been eliminated as it is not financially feasible. The remaining five build alternatives are recommended for a potential future NEPA analysis, in addition to the no build alternative. Regarding your concerns with the CBJ letter and the analysis on 1990 Mendenhall Wetlands State Game Refuge Management Plan, we have noted your concerns and will include these in the comment log in the Final PEL Study. Best regards,			

		this and provided for the reasonable protection of refuges.				

4/4/2025	Trevor Sikes	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good morning, Mr. Sikes, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	4/7/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				

4/8/2025	Richard Mullowney	Dear Mr. : The Mendenhall wetlands are a treasured public hunting and angling destination and an important resource for a vast number of species including migratory birds and anadromous fish. Construction of a second/north crossing on the Mendenhall State Game Refuge is a significant threat to conservation, hunting, and angling, and we have concerns with the PEL studies conducted. Many of the areas of the PELs including the Upland Habitat Survey Reports, Land Use Memo, Wildlife and Fish Resources, and the Environmental Setting documents all refer to 20-year-old data and contain limited new data on the area. The Upland Habitat Survey does not take in account year-round data on migration of birds or cover a longer study period that would be standard and necessary to determine impact of new development. The Land Use Memo clearly states that the use of refuge should be avoided or minimized to the maximum extent feasible including subsurface or elevated no-fill corridor options where feasible. This criterion can be met by removing the Sunny Point area locations from further feasibility studies and all other refuge locations, since Salmon Creek is a viable option that is outside of the refuge boundaries. The Origin Destination Data Memo further supports this option, showing the largest volume of vehicles are traveling to South Douglas, which is where the current bridge location is. This data does not support the need to put a second crossing within the Mendenhall wetlands. Furthermore, there is documentation that just in 2023, ADF&G added over a dozen new	Good afternoon, Mr. Mullowney, Thank you for your interest in the Juneau Douglas North Crossing PEL Study. I have shared your comments with the project team and added you to the study update list. Please visit the website at www.JDNorthCrossing.com for the latest information on the study. Kind regards,	4/15/2025	M. McCammon	

		anadromous fish streams to the Anadromous Waters Catalog (AWC), not captured in the May 2005 study. I urge DOWL, AKDOT and the CBJ to conduct sound scientific analysis of this proposed project that threatens critical habitat as well as hunting and fishing access for the community. This is necessary before moving forward with any decisions on location inclusions or exclusions for the next phase of project and NEPA analysis. Sincerely,				
4/14/2025	Eric Forst	Hi Morgan, I am just checking in to see if we can reserve a date for you to come present to Glacier Valley Rotary? We have open dates in April and June.				