



# APPENDIX 1:

PEL Questionnaire



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Please note that this Questionnaire should be prepared at two points in the process: once in the beginning and a final time at the end of the PEL study. Project teams should complete what they can at the beginning and SEO review will focus on planned methodologies to make sure the PEL study is following the appropriate statute and regulation. Regular review of the Questionnaire may assist project teams as the study progresses. The finalized PEL Questionnaire will be appended to the Final PEL Report.

**1. Background**

**A. What is the name of the PEL document and other identifying project information?**

Juneau Douglas North Channel Crossing – PEL Study

Project #SFHWY00299/00003259

**B. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were conducted.**

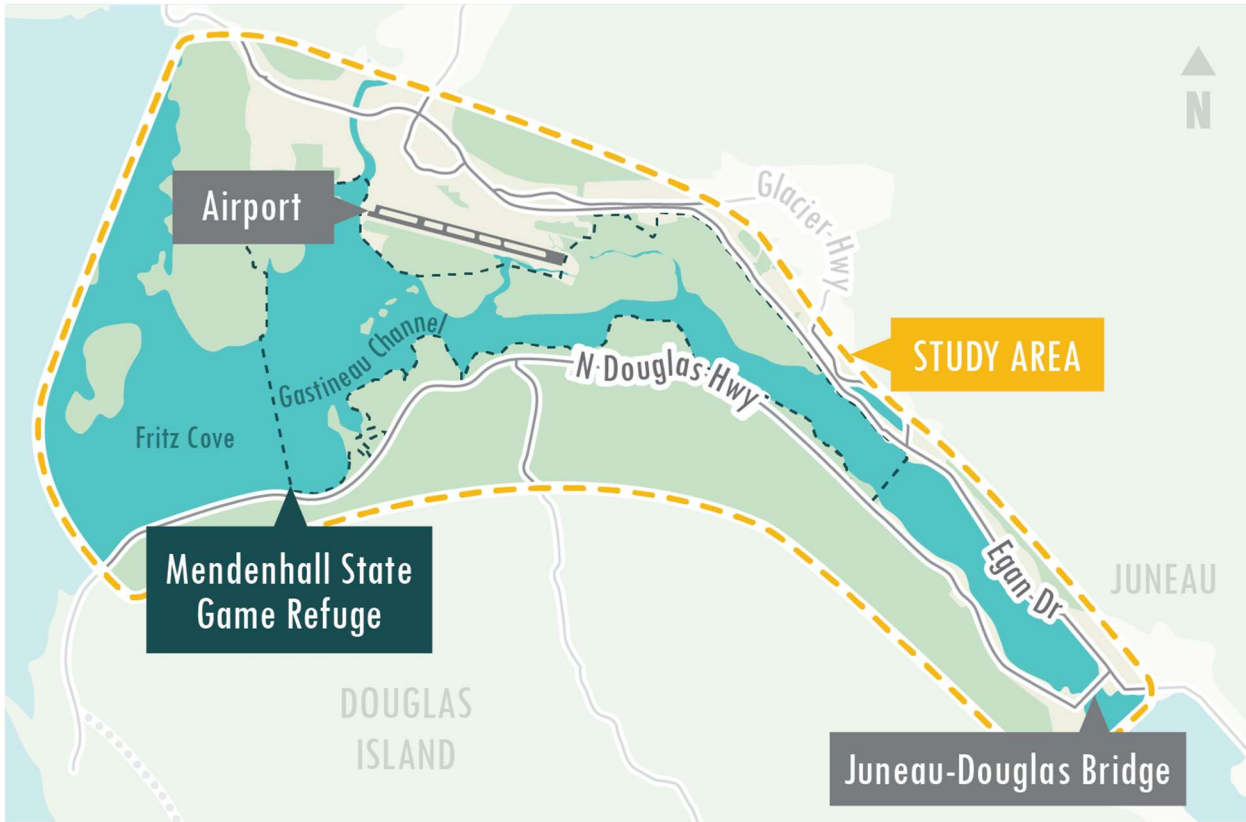
A brief chronology of the planning activities in the PEL study process includes:

Definition of project area	Winter 2021-2
Collection and summary of maps, studies, and other data	Winter 2021 - Spring 2022
System performance memo	Spring 2022
Purpose and need	Fall 2022
Recommended alternative selection criteria	Fall 2022
Basic description of environmental setting	Summer 2022
Preliminary alternatives development	Summer 2022
Initial alternatives screening	Summer 2022 – Spring 2023
Development of detailed alternatives	Spring 2023 – Spring 2024
Detailed alternatives screening	Winter 2023 – Spring 2025
PEL Study Report	Spring 2025

**C. Provide a description of the existing transportation corridor, including project limits, modes, number of lanes, muster, access control and surrounding environment (urban vs. rural, residential vs. commercial, etc.)**

The project will plan for the development of a second channel crossing north of the existing Douglas Island Bridge, between Juneau and Douglas Island. The study area is shown in Figure 1.

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**Figure 1 – PEL Study Area**

The study area environment is characterized by a mix of land uses, including Mendenhall Wetlands State Game Refuge, residential, commercial, industrial, recreational, and institutional land uses, as well as green space and undeveloped land. Several studies and analyses have been undertaken since the early 1980s to evaluate alternatives for a north channel crossing. Further research will be carried out during the PEL process to confirm the characteristics of the surrounding environment and land uses.

**D. Who is the sponsor of the PEL study? (Could be FHWA, DOT&PF or a local agency)**

Alaska Department of Transportation and Public Facilities (DOT&PF) and City and Borough of Juneau (CBJ).

**E. Who is included on the study team (Name and title of agency representatives, consultants, etc.)?**

Refer to the project roster in the table below.

Name	Role	Agency
Greg Lockwood	Project Manager	DOT&PF
Christy Gentemann	Regional Environmental Manager	DOT&PF
Jill Melcher	Southcoast Planning Chief	DOT&PF
Alexandria Lawrence	Planner	DOT&PF
Nina Keller	NEPA Program Manager	DOT&PF-SEO

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Name	Role	Agency
Doug Kolwaite	Statewide NEPA Program Manager	DOT&PF-SEO
Jill Taylor	Statewide NEPA Program Manager	DOT&PF-SEO
Sam Dapceвич	Public Information Officer	DOT&PF
John Bohan	Chief CIP Engineer	CBJ
Denise Koch	Director, Engineering and Public Works	CBJ
Bridget LaPenter	Chief GE Engineer	CBJ
Nate Rumsey	Deputy Director, Engineering and Public Works	CBJ
Alec Venechuk	Project Engineer	CBJ
Irene Gallion	Senior Planner	CBJ
Steve Noble	Project Manager/Engineering Lead	DOWL
Renee Whitesell	PEL Study Lead	DOWL
Lincoln Brandau	Project Controls	DOWL
Rachel Steer	Public Involvement Lead	DOWL
Danielle Dance	Engineering	DOWL
Michael Horntvedt	Planning Lead	Parametrix
Kristen Hansen	Environmental Lead	DOWL
Theresa Dutchuk	NEPA Specialist	DOWL
Adam Morrill	Coastal/4(f)/6(f) Specialist	DOWL
Emily Creely	Wetlands Specialist	DOWL
Paul Fendt	Fish & Birds Specialist	Parametrix
Steve Krueger	Fish Biologist	Parametrix
Jeanne Bowie	Traffic Engineering	Kinney Engineering
Nick Robertson	Structural Engineering	DOWL
Jeremiah Holland	Geotechnical Engineering	DOWL
Morgan McCammon	Public Involvement	DOWL
Marella Gungob	Public Involvement	DOWL
Dave Simmons	QA/QC	DOWL

**F. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?**

Several previous planning, environmental, and public involvement efforts have been initiated that sought to identify a location for a northern crossing within the project area:

- Preliminary Alternatives Report, Executive Summary. Second Gastineau Channel Crossing Feasibility Study, December 1983:** This study examined options for improving transportation from mainland Juneau to North Douglas Island, to accommodate expected growth. The study was a comprehensive examination of the constraints and opportunities

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for a second crossing, including need, feasibility, costs, and location of a second crossing of the Gastineau Channel. Thirteen alternative crossing locations were identified and scored according to a range of criteria reflecting environmental conditions, planned growth, traffic and transportation benefits, and cost. The four highest-scoring alternatives were in the vicinity of the airport, connecting with Egan Drive. The next highest-scoring alternatives were close to the location of the existing Douglas Island Bridge.

- **Reconnaissance Study Report North Douglas Transportation Corridor (Bench Road) West Juneau to Fish Creek Road. Prepared by R&M Consultants, Inc. January 1984:** This study considered the location of alternative routes to North Douglas Highway between West Juneau and Fish Creek Road (known as the Bench Road). The Bench Road was explored as the existing Douglas Highway is a limited use highway that was constructed to provide access to homestead and cabin sites on North Douglas. The study report noted that future widening of the existing roadway will be challenging due to the need to acquire right-of-way from neighboring properties. Traffic trends summarized from 1970 and projected to 1992 indicated that traffic would continue to grow in response to population growth. Forecasts predicted that as early as 1992, a portion of North Douglas Highway would reach capacity during peak periods. Therefore, an alternative solution for the costly improvements to North Douglas Highway was considered necessary. The study provided a summary of environmental conditions, resource material development sites available to support the Bench Road construction, socio-economic conditions, existing and future land uses, area geology, traffic projections, and provides details of design criteria and typical sections for the proposed Bench Road. It also set out a planning-level cost estimate (in 1984 dollars), and development methods to advance construction of the road.
- **Second Gastineau Channel Crossing Feasibility Study, February 1984:** This study was the final report culminating from nine separate products, including the Preliminary Alternatives Report Executive Summary for the Second Gastineau Channel Crossing Feasibility Study, dated December 1983. Other products included a resident survey, population projections and a public hearing summary documenting public comments on the different alternative crossing locations and the evaluation process. The study set out population growth data, land uses, potential development opportunities and impacts, environmental conditions, transportation projections, preliminary engineering considerations and costs, public policy, funding, and regulatory considerations. A total of 15 different alternative routes were considered, as well as a no-crossing alternative and other facilities to support the routes such as a proposed Bench Road. The study then established a range of evaluation criteria for considering each of the alternatives, which were ranked from preferred to least

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preferred. As with the Preliminary Alternatives Report, alternatives that proposed connecting to Egan Drive scored the highest, followed by a Mendenhall Loop alternative, and then two alternatives that connected at Sunny Point. The no-crossing alternative ranked 12th of the 15 alternatives considered.

- **West Douglas/Channel Crossing Preliminary Estimate. Prepared by R&M Engineering. June 1992:** This document provided a cost estimate for two different options for a Gastineau Channel crossing. The parameters for each alternative are detailed in the estimate, including the width of the roadway, number of lanes, turnout features, and are based on the construction of a bridge that begins “at-grade” north of Sunny Point on Egan Drive and end “at-grade” near the Eaglecrest (Fish Creek Road) intersection on North Douglas Highway. “Option 1” provided for 7,700 linear feet of elevated bridge structure including a moveable span of less than 100 feet in length to allow for small vessels under 15 feet in height to pass without moving the span. This option was estimated at approximately \$48 million in 1992 dollars. “Option 2” consisted of a series of roadway fills, elevated structures and large culverts. The channel crossing was a 100 foot or shorter section that would move to allow larger vessels (greater than 15 feet in height) to pass. This option would have cost approximately \$18.2 million in 1992 dollars.
  
- **Goldbelt West Douglas Master Plan 1997 – West Douglas Conceptual Plan. City and Borough of Juneau & Goldbelt, Inc. May 1997:** CBJ and Goldbelt, Inc jointly began conceptual planning of their adjoining properties along approximately 8 miles of west Douglas Island. The area includes 1,740 acres of Goldbelt property along the coastal margin and 3,434 acres of CBJ land located immediately interior of the Goldbelt property. The area is considered the largest developable block of land accessible to the existing City of Juneau. The Plan acknowledges the two parties have different development goals that would need to be balanced, and that any future development options would require participation from both parties. The conceptual plan identifies five development areas providing land uses including commercial and institutional development, residential housing at a range of densities (approximately 2,050 units), a golf course, marine industrial, a marina and water access with camping and RV accommodations. At its full build the conceptual development provides for a residential population of approximately 7,500 people. The plan also considers the implications of the development on infrastructure and utilities, including increased traffic on the North Douglas Highway.
  
- **The North Channel Crossing – The Time to Begin is Now. Research and Analysis of Historical Information in the Context of Current Planning. October 1997:** This document

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proposes the need to initiate the planning process for constructing a North Gastineau Channel Crossing to connect Egan Drive and Douglas Island. It does this in recognition that careful planning with sufficient lead time is needed to assist with realizing this major capital improvement to the overall quality of life within CBJ. It proposed that an all-season, all-weather “transportation link” between the mainland north of the Juneau Downtown Core and the North Douglas Island area road system would help to resolve concerns for traffic congestion and safety, as well as efficient vehicular access. The analysis sets out the history of North Channel Crossing proposals, the purpose and need for the project, case for proceeding with construction in the near term, and preliminary capital investments for the project.

- **Preliminary Scoping Report, November 2004, Project No. 68540/HP-0954(18):** The Preliminary Scoping Report was developed in readiness for an Environmental Impact Statement (EIS) to determine the location and conceptual design of a proposed second Gastineau Channel crossing connecting mainland Juneau with Douglas Island for motor vehicles, pedestrians, and bicyclists. The core study area encompassed an approximately 9-mile segment of the Gastineau Channel extending from the vicinity of Salmon Creek to Mendenhall Peninsula/North Douglas Island. The purpose of the project was to improve access between the Mendenhall Valley on mainland Juneau and north Douglas Island with a transportation facility for vehicles, pedestrians, and bicyclists that is cost reasonable and meets the existing and future transportation needs of the Juneau community. Primary needs identified for the project included improving network connectivity for shorter travel times, recreational access and non-motorized trips; improving access for public safety and emergency response, and locating the second channel crossing to efficiently serve planned new growth areas on Douglas Island. The Preliminary Scoping Report then details tasks to be accomplished for environmental scoping.
  
- **Project Development Summary Report, Juneau Second Channel Crossing. Prepared for DOT&PF by HDR Alaska, Inc. May 2005:** The Project Development Summary Report documents the preliminary results of the scoping activities conducted for the Juneau Second Channel Crossing EIS, in combination with preliminary engineering and environmental baseline conditions/studies. It does this to assess current conditions in the project study area and document baseline findings. It also evaluated the 1984 Feasibility Study to consider the potential feasibility of various crossing concepts. Preliminary conclusions included that a crossing in the vicinity of the Vanderbilt Hill area to Yandukin Drive area provided the greatest potential for meeting the project’s purpose and need; the least costly crossing potentials were in the Vanderbilt Hill area to the Sunny Drive area; for

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an “all structure” crossing of the Gastineau Channel, a Channel Drive/Salmon Creek area crossing was the least costly option; the Channel Drive/Salmon Creek area and Mendenhall Peninsula area crossing locations were the only opportunities to avoid the Mendenhall Wetlands State Game Refuge; and crossing in the Vanderbilt Hill Road area to Yandukin Drive area best avoided the highest value areas in the Refuge. The Summary Report then recommended several next steps for the project to enable it to advance toward further development. Delays were encountered in the EIS process due to uncertainty of available funding to complete the EIS.

- **North Douglas Crossing Public Involvement Project to Identify Juneau’s Preferred Route for a Crossing of Gastineau Channel. Prepared for CBJ by Sheinberg Associates with R&M Engineering, PND Engineering, and McDowell Group. April 2007:** This report documents the results of a public involvement process initiated by CBJ to determine which crossing location was preferred by the community. It recommended that a crossing area at Vanderbilt Hill Road be identified as the community’s preferred location for the North Douglas Crossing. The public involvement process presented conceptual alignments for public response, one at Vanderbilt Hill Road, two at Sunny Point, and two at Yandukin Drive. The public involvement process noted that three-quarters of Juneau residents supported or strongly supported the construction of a North Douglas crossing, but there was an even split between those who thought it should be a high priority project and those who did not.

Other previously developed transportation and land use plans were evaluated as part of the PEL Study effort and are documented in the Draft PEL Study Report.

The CBJ is kicking off its Comprehensive Plan update. This future plan will likely set forth objectives and policies for the City, consider the Juneau Douglas North Crossing, identify future development areas.

## **2. Methodology planned (or used)**

### **A. What is/was the scope of the PEL Study and the reason for completing it?**

The scope of this PEL Study includes development of purpose and need, stakeholder outreach, alternatives development and screening, limited environmental resource mapping and issues identification, garnering consensus to the extent feasible on the alternatives and screening approach, and compilation of documentation. The PEL Study is intended to be compliant with and support transition to future National Environmental Policy Act (NEPA) and environmental review processes, including Section 404 permitting, Section 106 consultation under the National Historic Preservation Act, and Section 4(f) evaluation and documentation under the U.S. Department of Transportation Act. This PEL Study used a

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collaborative approach that considers environmental, community, and economic goals to evaluate the need for additional access to Douglas Island. The PEL Study assessed the need for additional access to Douglas Island and prioritized potential alternative(s) that address the need(s). The primary reason for completing this study is to expedite future NEPA and other environmental review processes.

**B. Did you use NEPA-like language? Why or why not?**

Yes. Many NEPA terms were used for consistency between project development phases, and to avoid issues in anticipated upcoming tasks. These are detailed in 2C. below.

**C. What were the actual terms used and how did you define them? (Provide examples or list)**

NEPA-like terms used in the study include:

- **Purpose and Need:** The purpose and need statement describes the transportation needs that exist and the problems to be addressed, as well as the overall goals and objectives of the project. It serves as a basis for the identification of reasonable alternatives, and overall project guidance.
- **Recommended Alternative:** This term is used instead of “preferred alternative” to differentiate between the PEL Study and a future NEPA process. This allows for the possibility of re-evaluating certain “not recommended” alternatives, or elements of those alternatives, if conditions change or more analysis is needed in a NEPA or other environmental review process.
- **Reasonable/Unreasonable Alternative:** One of the goals of the PEL is to determine a reasonable range of alternatives that can be adopted or incorporated into the NEPA process. The new NEPA implementing regulations published in 2024 (40 CFR parts 1500-1508) include updated language regarding the range of alternatives. From 1508.1(ff) – *“reasonable alternatives means a reasonable range of alternatives that are technically and economically feasible, and meet the purpose and need for the proposed action.”*
- **No Build Alternative:** The No Build Alternative includes both existing and reasonably foreseeable projects near and within the study area, as well as ongoing maintenance projects. The No-Build Alternative represents the transportation system as it currently exists, and it serves as a baseline against which other alternatives are compared.
- **Fatal Flaws:** This term is used for impacts that prohibit an alternative from being built.
- **Logical Termini:** The termini identified for the study are the rational starting and stopping points for evaluating transportation improvements in this PEL study. Logical termini may also be used to describe the logical starting and stopping points of projects identified to implement the northern crossing.
- **Public and Agency Involvement:** Public and agency involvement provided opportunities for interested parties to participate in and provide feedback to the PEL Study. This supported the collection of information, ideas, opinions, and feedback from the public and agencies. NEPA regulations allow pre-scoping activities to occur prior to the publication of the Notice of Intent, thus information gathered during the PEL public and agency involvement process has the potential to be incorporated into the NEPA process. This may streamline the duration and magnitude of scoping effort needed for the NEPA phase.
- **Potential Effects:** The PEL Study describes the social and environmental resources in the project area, and a very high-level overview of the potential effects that may result from the

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implementation of the project(s) recommended in the PEL, sufficient to support the PEL alternatives screening process. This includes resource categories typically included in NEPA documents, including both social resources (e.g., environmental justice populations, cultural resources, Section 4(f)/6(f) properties, etc.) and biological/environmental resources (e.g., coastal resources, wetlands, fish and birds, streams and waterbodies, etc.)

- **Mitigation:** Mitigation measures seek to avoid, minimize, and mitigate adverse environmental effects. This term will be used in the PEL phase and in the NEPA phase.

**D. How do you see these terms being used in NEPA documents?**

Except for “recommended alternative”, these terms are expected to be used in a future NEPA process(es). The intent is that the Purpose and Need statement and the alternatives screening analysis could be adopted into future NEPA documents, although they may need to be tailored or refined.

**E. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps?**

The project team includes DOT&PF staff from the planning, environmental, and engineering disciplines, CBJ staff from the engineering and planning disciplines, and a consultant team. The PEL Study has taken approximately three-and-a-half years. Bi-weekly project coordination meetings and monthly progress meetings continued throughout the PEL Study’s duration. The project team provided oversight to various aspects of the project, including review and concurrence on milestones and deliverables listed below. In addition to three open house format public meetings, a Stakeholder Advisory Committee (STAC) and Technical Advisory Committee (TAC) were formed and met regularly to participate in key steps of the PEL process.

- Determining the purpose and need (October 2021 – October 2022)
- Development of alternatives (May 2022 – January 2023)
- Screening of alternatives and identification of environmental impacts and potential mitigation (February 2023 – February 2025)
- Finalization of PEL Study (February 2025 – July 2025)

**F. How must the PEL information below be presented in NEPA?**

It is expected that the PEL study will form the early planning stages for a future NEPA process(es). It is likely that purpose and need, planning analyses, alternatives developed and evaluated, and environmental resource data collected during the PEL study would be referenced in the NEPA process and included in the NEPA document, where appropriate. Information from the public and agency involvement program will also be used.

The NEPA scoping process should adhere to the requirements of 23 United States Code (USC) 168 and make sure the planning documents from the PEL Study are made available for public review, provide notice of the intent of the DOT&PF to adopt or incorporate by reference the planning products listed above, and consider any comments made.

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**3. Agency coordination**

**A. Provide a synopsis of coordination with federal, tribal, state, and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.**

To help ensure project stakeholders are represented, two advisory committees were created: a Technical Advisory Committee, and a Stakeholder Advisory Committee. Early in the PEL process meetings between the Committees were combined owing to feedback from both groups about a desire to hear input from the other. As part of the process, the project team complied with relevant regulations (including 23 CFR 450) and guidance, which indicate that environmental, regulatory, and resource agencies, and tribes should be included in the PEL Study. Guidance also indicates that the process should be conducted in coordination with federal, state, local, and tribal land management and regulatory agencies.

The project team focused stakeholder outreach activities on four sets of planning products and decisions (1 - purpose and need statement, alternative screening process and screening criteria; 2 – range of alternatives; 3 – preliminary alternative screening response; detailed alternative screening results and recommended alternative(s)), with additional updates as needed based on feedback, additional activities or concerns that arose during the PEL process. Information was shared with committees and the public, and opportunities were provided to make comments throughout the project, with specific encouragement to comment during 30-day comment periods following the public open house meetings. The schedule for public and agency meetings is set out in the below table:

<b>Focus</b>	<b>Public Meeting</b>	<b>Advisory Committee Meeting</b>	<b>Dates</b>
Themes for purpose and need statement, alternatives screening process and screening criteria	Public Open House #1	Technical and Stakeholder Advisory Committee Meeting #1 (Virtual)	Spring 2022
Alternatives Development Workshop	Pop-Up Public Open House Meetings at Eaglecrest Ski Area and Safeway Supermarket	Joint Technical and Stakeholder Advisory Committee Meeting Workshop (In-Person)	Summer 2022
Purpose and need statement, preliminary range of alternatives, alternatives screening process	Public Open House #2	Technical and Stakeholder Advisory Committee Meeting #2 (In-Person)	Winter 2022
Preliminary alternative screening results and detailed Alternative screening criteria		Joint Technical and Stakeholder Advisory Committee Meeting #3 (In-Person)	Spring 2023

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Focus	Public Meeting	Advisory Committee Meeting	Dates
Additional Field Studies and detailed alternative screening overview (prior to screening)		Joint Technical and Stakeholder Advisory Committee Meeting #4 (In-Person)	Fall 2023
Draft detailed alternative screening results		Technical and Stakeholder Advisory Committee Meeting #5 (In-Person and Virtual)	Spring 2024
PEL Study Update owing to additional information delaying detailed alternative screening and identification of recommendations		Technical and Stakeholder Advisory Committee Meeting #6 (Virtual)	Fall 2024
Recommendations from detailed alternative screening		Technical and Stakeholder Advisory Committee Meeting #7 (Virtual)	Winter 2025
Draft PEL Study	Public Open House #3		Spring 2025

**B. What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved in the PEL study?**

The project team involved Juneau International Airport and Capital Transit in the PEL Study.

**C. What steps will need to be taken with each agency during NEPA scoping?**

Agency coordination that will need to be undertaken during the subsequent NEPA process will be determined at the time the process is initiated. Full agency scoping is anticipated for any project forwarded from the PEL study.

**4. Public coordination**

**A. Provide a synopsis of your coordination efforts with the public and stakeholders.**

Coordination efforts with the public and stakeholders are set out in the Public and Agency Involvement Plan and detailed in 3 A. above.

**B. Provide the corridor vision, objectives, or purpose and need statement.**

Purpose: The purpose of the Juneau Douglas North Crossing PEL Study is to identify ways to improve the

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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.

Need: An improved connection to Douglas Island should address the following needs:

- *Alternate access and transportation infrastructure resilience.* The community has expressed concerns regarding the lack of an alternate access during emergencies and the City and Borough of Juneau (CBJ) has identified the issue in the 2013 Comprehensive Plan. In the event of the Douglas Island Bridge or another single route travel corridor in the area (North Douglas Highway or Egan Drive) being inaccessible or out of service, emergency response would be delayed, and residents cut off from access to workplaces and critical resources.
- *Decrease traffic pressure on Douglas Island and its intersections.* The traveling public is currently experiencing delays and congestion on the Douglas Island Bridge and its intersections during peak travel times. Analyses indicate that the intersections operate at or over capacity during peak travel times and will continue to deteriorate based on estimated future traffic counts.

Additional Goals:

- Improve connection to North and West Douglas by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.
- Enhance and protect the public health and 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.

## 5. Range of alternatives considered, screening criteria, and screening process

### **A. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)**

A broad range of alternatives were considered as part of the PEL Study, as referenced in the draft PEL Study Report. Nine preliminary alternatives and a “no build” alternative were evaluated (known as Mendenhall Peninsula, North Airport, West Sunny Point Area, Sunny Point Area, Vanderbilt, Twin Lakes, Salmon Creek, Eagle Creek, and Downtown), and six alternatives and a “no build” alternative were evaluated using the detailed alternative screening criteria (known as Mendenhall Peninsula, West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek). Five alternatives are recommended (known as West Sunny Point, East Sunny Point, Vanderbilt, Twin Lakes, and Salmon Creek). Details about the alternative evaluation and screening process are included in the draft PEL Study Report.

Locations south of the existing Douglas Island bridge have not been considered due to existing, relatively dense built development on both the Douglas Island and Juneau sides of the

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Gastineau Channel, and because the area between Douglas and Juneau is significantly wider just south of the bridge. A second crossing south of the existing Douglas Island bridge is likely to create significant disruption and displacement of existing land uses, such that broadening the study to include this area is considered unreasonable.

The new NEPA implementing regulations made public in 2024 (40 CFR parts 1500-1508) directs agencies to limit consideration to a reasonable number of alternatives, as well as adding a new definition for the reasonable range of alternatives that must be considered in an Environmental Impact Statement, Part 1508.1(hh) states *“reasonable alternatives means a reasonable range of alternatives that are technically and economically feasible, meet the purpose and need for the proposed action.”* In the Council on Environmental Quality’s summary of the new NEPA implementing regulations, it stated that these changes *“may reduce administrative costs and accelerate the timeliness of review by focusing on feasible alternatives.”* Conducting analysis for alternative crossing locations south of the existing Douglas Island bridge does not meet the intent of the new NEPA regulations.

**B. How did you select the screening criteria and screening process?**

Screening criteria were developed and applied as part of the PEL Study. The screening criteria were defined using input from the public and agencies. The definition and application of the criteria was a collaborative effort with the Technical and Stakeholder Advisory Committees, which accounted for the longer project schedule and greater number of advisory committee meetings held to discuss feedback and revisions to screening results, and ultimately share which alternatives are recommended to move forward to a future NEPA process.

**C. For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)**

Three preliminary alternatives were eliminated during the preliminary screening process. The alternatives were eliminated for the following reasons:

- Eagle Creek: This alternative provides alternate access between Juneau and Douglas Island but does not meet the purpose and need to improve transportation infrastructure resilience because a single route closure along Egan Drive or Glacier Highway caused by vehicle collisions, fallen trees or power lines, landslides or avalanches would cut off access between Juneau and the Mendenhall Valley, disrupting access to this crossing location. Because this location is near the existing Douglas Island Bridge, the utility of a second crossing to create secondary access in the event of a single route closure between Juneau and Mendenhall Valley is limited such that it is not meaningful to meet the purpose and need for infrastructure resilience. This location is also unlikely to improve access to workplace and critical resources during a single route closure because of its location near

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the existing crossing.

- Downtown: This alternative does not meet the purpose and need criteria for the reasons detailed for the Eagle Creek alternative. In addition, emergency response times and transportation-related energy consumption will not be improved as the alternative is located next to the existing Douglas Island Bridge.
- North Airport: Although the North Airport alternative meets the purpose and need, it is potentially “fatally flawed” from a constructability perspective owing to the alternative needing to be a tunnel. This is because the alternative is considered feasible but not reasonable for the following reasons:
  - Potential for geotechnical challenges. Isostatic rebound is occurring in the Mendenhall Wetlands at a rate as high as half an inch annually. The changing ground level is highly likely to affect a tunnel because of the ongoing movement, which will create long-term maintenance issues and potentially generate safety concerns associated with material deterioration. The soil conditions anticipated in the crossing location area may be susceptible to liquefaction in a seismic event. An event causing liquefaction has the potential to be catastrophic for a tunnel.
  - Construction costs and maintenance costs for a tunnel far exceed that of bridge structures and causeways.
  - Surface alternatives on this alignment will likely impact Juneau airport approach operations.

One additional alternative, Mendenhall Peninsula, was eliminated through the Level 2 alternative screening process owing to its high planning level cost estimate, making it financially unfeasible. Refer to the draft PEL Study Report for details of the alternative screening process and memoranda attached as appendices for the detailed screening analysis.

**D. Which alternatives must be brought forward into NEPA and why?**

Five alternatives are recommended to advance to NEPA. Reasons for this recommended are as documented in the draft PEL Study Report.

**E. Did the public, stakeholders, and agencies have an opportunity to comment during this process?**

The public, stakeholders, and agencies have had numerous and ongoing opportunities to comment throughout the entire PEL process. Public comments are summarized in an Appendix 4 of the draft PEL Study Report.

**F. Were there unresolved issues with the public, stakeholders and/or agencies?**

Refer to the draft PEL Study Report. The key unresolved issue is in relation to potential impacts on Section 4(f) of the USDOT Act resources, which are most appropriately addressed through a NEPA process.

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**6. Planning assumptions and analytical methods**

**A. What is the forecast year used in the PEL study?**

The planning horizon for this study begins in 2021 and extends to 2050, a period of 29 years.

**B. What method was used for forecasting traffic volumes?**

A traffic forecast was developed as part of the PEL Study. The methodology for completing the traffic forecast was determined as part of completing the Traffic Forecast Technical Memorandum.

**C. Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long-range transportation plan?**

Refer to Chapter 3 of the PEL Study Report.

The planning assumptions and purpose and need statement are consistent with the long-range transportation plan for the following reasons:

- The PEL study considers a transportation improvement that will improve transportation infrastructure resiliency by providing more than one access between Juneau and Douglas Island will support safety outcomes by providing access to jobs, homes, education, healthcare and essential services even if a transportation route is closed. In addition, the proposed route will provide multimodal transportation options, improving access for all people.
- The PEL study evaluates options to increase transportation capacity and ease a connection that is already near or at capacity. This creates opportunities for land use including to supply needed housing, and also new commercial opportunities that will potentially spur job growth.
- The PEL study will support clean transportation opportunities as a secondary purpose is to identify ways to improve transportation for non-motorized users and reduce transportation related energy consumption.
- The PEL study will strengthen collaboration between agencies to develop transportation solutions as it is sponsored by both DOT&PF and CBJ, to identify ways to improve the connection between Douglas Island and Juneau.
- The PEL study may support efficient freight movement as improving the connection between Douglas Island and Juneau will support improving local freight deliveries and potentially reduce delay.
- The PEL process is founded on strengthening stakeholder engagement and an open decision-making process, and the frequency of public and stakeholder involvement activities is intended to strengthen stakeholder engagement and open decision-making processes.

**D. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs and network expansion?**

Refer to the draft PEL Study Report and appendices.

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**7. Resources (wetlands, cultural, etc.) reviewed; for each resource or group of resources reviewed, provide the following:**

**A. In the PEL study, at what level of detail was the resource reviewed and what was the method of review?**

Initially, desktop-based analysis was used to characterize resources analyzed under FHWA NEPA guidance. The results were formalized into memoranda that described methods and data sources used to determine if resources were present and if so, characterize current conditions and spatial extents. These memoranda formed the basis of the Basic Description of the Environmental Setting report, and also environmental setting chapter of the PEL study.

Fieldwork was recommended by DOT&PF to better inform alternatives analysis, including a wetland delineation, documentation of visual and geophysical characteristics, intertidal and bird habitat mapping, and an eelgrass survey. Chapter 5 of the draft PEL study report provides the environmental setting information, augmented by the completed fieldwork.

Once alternatives were developed and fieldwork (wetlands, habitat mapping, geology) completed, some resource categories were used to assess potential effects of alternatives in Level 2 screening. Section 7 of the draft PEL Study Report summarized the potential effects on resources not directly assessed in Level 2 Screening. A detailed effects analysis on all resources will be confirmed through any subsequent NEPA process. Evaluation of preliminary environmental effects included studies, design mitigation options and likely permits for all alternatives. Resources that were reviewed include:

Human Environment

- Population and Economic Projections
- Social Groups and Community Cohesion
- Transit
- Schools
- Existing Land Use
- Land Ownership
- Zoning
- Native Allotments
- Section 4(f)/6(f)
- Historic and Cultural Resources

Natural Environment

- Geologic Hazards
- Geotechnical Considerations
- Hydrology
- Water Quality
- Floodplains

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- Navigable Waters
- Wetlands
- Threatened and Endangered Species
- Fish and Wildlife

Built Environment

- Contaminated Sites
- Noise
- Air Quality and Climate Change
- Visual Effects
- Utilities

**B. Is this resource present in the area and what is the existing environmental condition for this resource?**

Refer to section 5 of the draft PEL Study Report.

**C. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?**

This information is provided for each resource in section 7 of the draft PEL Study Report.

**D. How will the data provided need to be supplemented during NEPA?**

This information is provided for each resource in section 7 of the draft PEL Study Report.

**8. List resources that were not reviewed in the PEL study and why? Indicate whether or not they will need to be reviewed in NEPA and explain why.**

All applicable resources that are present were reviewed. The following resources are not present within the study area and are not anticipated to be further reviewed during NEPA analysis:

- Coastal barriers and coastal zone management
- Farmlands
- Wild and scenic rivers

**9. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where it can be found.**

No; cumulative impacts are only evaluated once impacts are quantified for an identified preferred alternative. As the PEL study makes recommendations for alternatives to be considered through a future NEPA analysis it is premature to consider cumulative impacts.

**10. Describe any mitigation strategies discussed at the planning level that must be analyzed during NEPA.**

This information is provided for each resource in section 7 of the draft PEL Study Report.

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**11. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?**

Information from this PEL Study has been made available to agencies and the general public and will further be made available during the scoping phase of a future NEPA process. A link to the online location of the PEL Study could be included in the scoping letters to agencies and the public notice of intent to begin preliminary engineering and the NEPA process. All comments received relative to this issue will be responded to.

The planning products anticipated to be used in a future NEPA process include:

- Purpose and Need Statement
- Alternatives considered
- Alternatives eliminated and the reasons why
- Alternatives recommended
- Summary of social and environmental resources in the project area and potential effects on those resources
- Potential mitigation ideas to offset impacts