

Data Summary

Major Utilities

PEL Study Description

The Alaska Department of Transportation and Public Facilities (DOT&PF) in cooperation with City and Borough of Juneau (CBJ) is studying a possible transportation corridor to connect Juneau with the north end of Douglas Island. A connection has been studied since the 1980s but has not progressed beyond identification and recommendation of preliminary alternative alignments. The previous studies highlighted several reasons for a north crossing:

- Congestion during peak periods on the existing Douglas Island Bridge
- Concerns about safety and emergency response in the event of a bridge closure
- The potential for residential, commercial, industrial, and port development at west Douglas Island

DOT&PF has chosen to use the Planning and Environmental Linkages (PEL) process to identify and evaluate a purpose and need (P&N) and recommend alternatives for connecting Juneau with the northern end of 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 boundary, where the proposed crossing may be located, is shown in Figure 1. The study area encompasses the area where prior studies and community outreach identified potential alternative crossing locations.

Purpose

This data summary was prepared as an initial step in the development of the proposed alternative corridors for the Juneau Douglas North Crossing PEL Study (Project Numbers: SFHWY00299/0003259). It is intended to confirm data for major utilities in the study area. This data summary includes data collection, analysis and mapping methods, assumptions, and a summary of the key findings.



Figure 1: Study Area

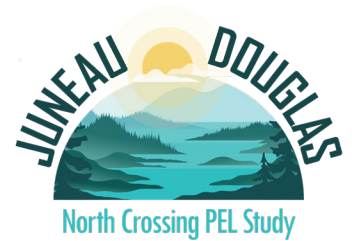
Data Collection Methods

Locations of major electrical utilities were collected by contacting the Alaska Electric Light and Power Company (AELP).¹ AELP provided Portable Document Formats (PDFs) via email correspondence showing the locations of overhead electrical transmission lines. Through correspondence with AELP, transmission lines were only provided for the following areas:

- Along Egan Drive and Glacier Highway (only when parallel to Egan) from Vanderbilt Hill Road to Old Dairy Road
- Along North Douglas Highway from south of Bonnie Doon Drive to the North Douglas boat ramp
- Mendenhall Peninsula Road (entirety), Engineers Cutoff Road south/west of Mendenhall Peninsula Road, and Fitz Cove Road south of Dock Street
- Fox Farm Trail and Resichl Way

The PDFs are not survey-grade but are used to understand the general locations of transmission lines in the study area. Locations of illumination poles were provided by CBJ via email correspondence.

¹Alaska Electric Light and Power Company. Accessed 2022. <https://www.aelp.com/>



Additional utility information was requested from CBJ; however, the information was not available. Locations of overhead transmission lines were also added by inspecting Google Earth Street View imagery.

Mapping Methods

Electrical transmission lines and illumination poles were displayed on the utilities map with a base map and outline of the proposed study area.

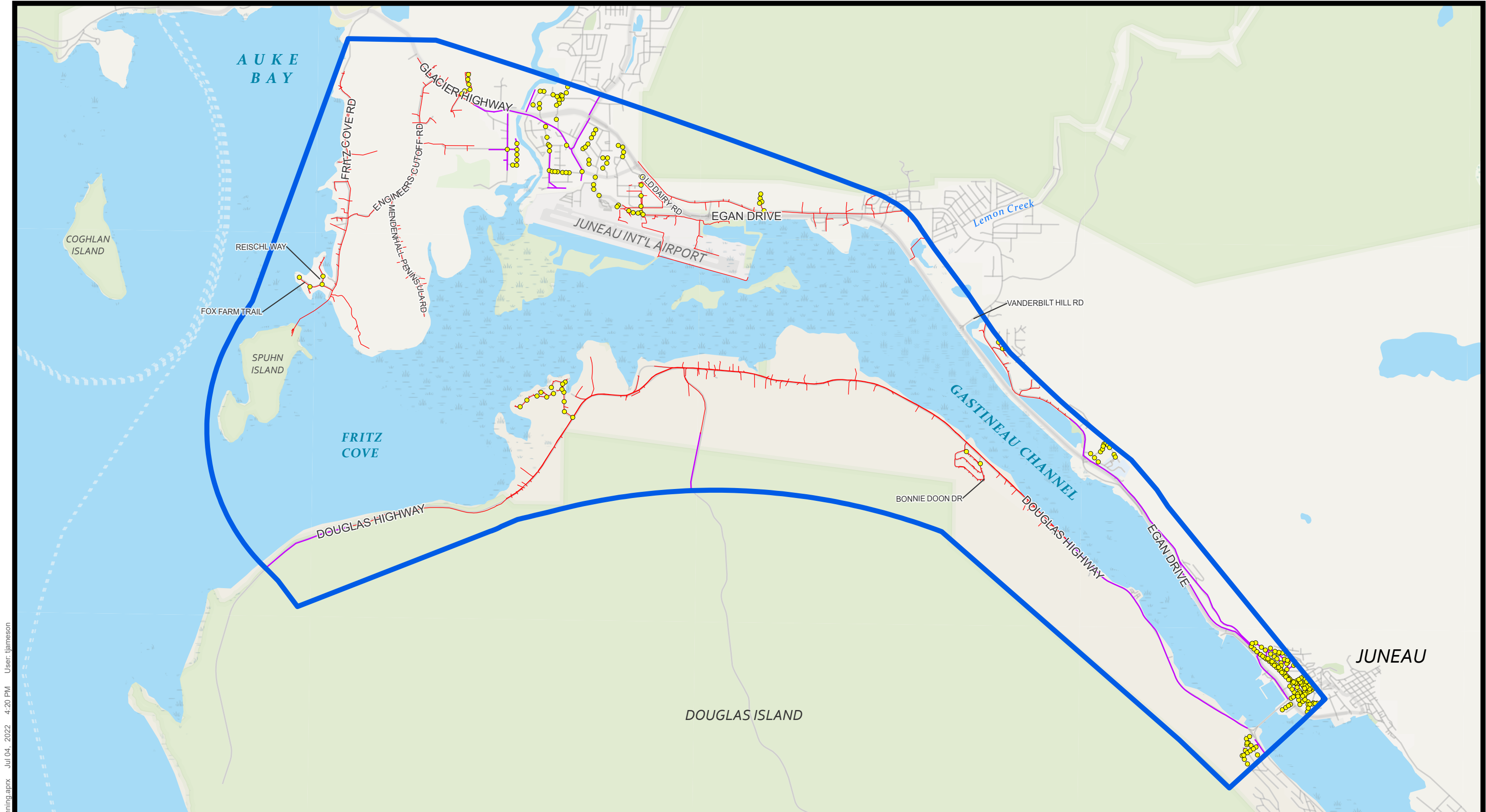
Summary

Electrical transmission lines are present along Douglas Highway south of Bonnie Doon Drive, Glacier Highway between Egan Drive and Vanderbilt Road, Glacier Highway between Walmart, and Fred Meyer, along Fritz Cove Road, and along Engineer's Cutoff Road (Figure 2). There are 249 light poles in the study area. Of these, 118 (47 percent) are in downtown Juneau, 68 (27 percent) are in Mendenhall Valley between Juneau International Airport and Egan Drive, 17 (seven percent) are on Douglas Island near the Juneau-Douglas Bridge, 14 (six percent) are in the Bayview Subdivision on Douglas Island, and 13 (five percent) are near Bartlett Regional Hospital.

Although mapping data was unavailable, the City and Borough of Juneau has a water network consisting of 180 miles of pipes, six reservoirs and three contact tanks, nine pump stations, 37 pressure reducing valves, 1,450 fire hydrants, and 9,705 water connections. Water distribution lines convey roughly 1.2 billion gallons of drinking water annually from one of the two water sources (Last Chance Basin or Salmon Creek Water Filtration Plant).²

Locations of transmission lines and light poles will be considered when developing and evaluating alternatives for the bridge crossing, in terms of costs and feasibility associated with relocations of the utilities.

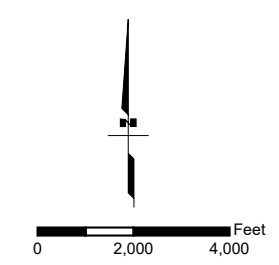
² <https://juneau.org/engineering-public-works/utilities-division/water-utility>



J:\3863234-01\60GIS\Carto\Planning\Planning.aprx Jul 04, 2022 4:20 PM User: tjameson
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- PROPOSED STUDY AREA
- LIGHT POLE (CBJ)
- AEL&P ELECTRICAL LINE*
- OVERHEAD TRANSMISSION LINES **

*ELECTRICAL LINES GENERALIZED AND NOT SURVEY GRADE. TRANSMISSION LINES ARE ONLY SHOWN FOR A SUBSET OF THE STUDY AREA AT THE REQUEST OF ALASKA ELECTRIC LIGHT AND POWER COMPANY (AEL&P).
 ** ELECTRIC LINES INFERRED FROM GOOGLE EARTH STREET VIEW



TRANSMISSION LINES WITHIN STUDY AREA
 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 NORTH CROSSING PEL STUDY
 CITY AND BOROUGH OF JUNEAU, ALASKA
 JULY 04, 2022 FIGURE 2