

UNITED STATES COAST GUARD
DRAFT ENVIRONMENTAL ASSESSMENT FOR CUTTER HOMEPORTING, STATION JUNEAU,
ALASKA

PREPARED BY: United States Coast Guard Civil Engineering Unit Juneau (Lead Agency); National Oceanic and Atmospheric Administration Office of Marine and Aviation Operations (Cooperating Agency)

This draft environmental assessment (DEA) for the proposed upgrade and construction of in-water and onshore facilities to support the homeporting of up to two major cutters at Station Juneau, Alaska, was prepared in accordance with the Coast Guard Environmental Planning Policy, COMDTINST 5090.1 (series), and is in compliance with the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321 to 4370h).

This DEA serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI). This DEA concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This DEA also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during DEA preparation.



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POLAR SECURITY CUTTER ACQUISITION PROGRAM

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR
CUTTER HOMEPORTING**

STATION JUNEAU, ALASKA

Prepared by:



U.S. Coast Guard
Arctic District
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June 2026

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1.0 INTRODUCTION

In 2019, the U.S. Coast Guard (USCG) completed a Programmatic Environmental Impact Statement (PEIS) evaluating the proposed design, build, and operation of Polar Security Cutters (PSCs), anticipating that supplemental or tiered National Environmental Policy Act (NEPA) documentation would be prepared in support of individual proposed actions, including specific information on homeporting, maintenance schedules, decommissioning, and transit routes (USCG 2019). A Finding of No Significant Impact, which was signed on 18 March 2019 (84 Federal Register 13050), documented the selection of Alternative 1 (Preferred Alternative). In November 2024, USCG prepared a Supplemental Environmental Assessment (SEA) evaluating the acquisition and homeporting of a commercial icebreaker, the U.S. Coast Guard Cutter (CGC) *Storis*, in Juneau, Alaska, including its transit from Mississippi to Alaska. The *Storis* would provide icebreaking capability in the Arctic to fulfill mission requirements while USCG works to commission new PSCs (USCG 2024a). USCG proposes to construct new facilities and upgrade existing facilities both in-water and onshore to support the homeporting of up to two major cutters (including CGC *Storis*) in Juneau, Alaska, to bolster USCG mission readiness in the Arctic District. This action is part of a larger effort to recapitalize the USCG fleet to ensure continued access to the Arctic Polar region and support the country's economic, commercial, maritime, and national security needs. This SEA supplements the 2019 PEIS and complements the 2024 SEA analysis to include information related to the *Storis* homeporting action that was not available at the time.

USCG has prepared this Draft SEA in compliance with NEPA of 1969, as amended (42 United States Code [USC] 4321 et seq.). Consistent with Executive Order (EO) 14154, *Unleashing American Energy*, the Council on Environmental Quality (CEQ) has rescinded its NEPA regulations, effective 11 April 2025, and is working with federal agencies to revise or establish agency-specific NEPA implementing procedures. Per CEQ guidance, while Department of Homeland Security (DHS) revisions are ongoing, agencies should continue to follow their existing practices and procedures implementing NEPA. As such, this document has been prepared in accordance with DHS Management Directive 023-01 (Rev 01); DHS Instruction 023-001-01 (Rev 01); and the USCG Environmental Planning Policy, Commandant Instruction (COMDTINST) 5090.1 (series).

For the purposes of this SEA, a cooperating agency is a federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to environmental effects associated with the Proposed Action. Cooperating agencies participate in the NEPA process to provide technical expertise, relevant information, and input within their areas of authority to support informed decision-making by the lead agency. State, local, or Tribal governments with similar jurisdictional responsibilities or expertise may also participate in this capacity by agreement with the lead agency. The National Oceanic and Atmospheric Administration (NOAA) participated in the preparation of this SEA as a cooperating agency.

1.1 LOCATION AND SITE DESCRIPTION

Station Juneau is a small boat station located along the shore of Gastineau Channel in downtown Juneau, Alaska (Figure D-1). The site includes the station building, a timber wharf, and a parking area, as well as an adjacent former ("legacy") NOAA facility that USCG assumed control of in 2024 with funding secured under the 2023 National Defense Authorization Act. The legacy NOAA facility includes three buildings—an administrative building, a warehouse, and an Alaska Department of Fish and Game (ADF&G)-owned shop operated jointly by NOAA and ADF&G—as well as waterfront infrastructure, utilities, and 2.39 acres

of land. The combined USCG and legacy NOAA timber wharves have a contiguous length of 655 feet, with an additional 50-foot mooring dolphin located to the west (USCG 2025a).

Station Juneau is organized under Sector Southeast Alaska within the USCG Arctic District. Its mission is to perform search and rescue missions, enforce laws and treaties, provide secondary aid to navigation, and maintain port security.

1.2 PROJECT BACKGROUND

USCG is a military, multi-mission maritime service within DHS. Under 14 USC 102, USCG is directed to, among other duties, “develop, establish, maintain, and operate, with due regard to the requirements of national defense, aids to maritime navigation, icebreaking facilities, and rescue facilities” (Congressional Research Service [CRS] 2024). Consistent with these statutory responsibilities, USCG conducts ice operations and maintains icebreaking capabilities to support maritime safety, security, stewardship, national defense, and international obligations (CRS 2024). As Arctic and Antarctic regions become increasingly accessible, vessel traffic in polar waters is expected to increase, driving greater demand for search and rescue, environmental protection, fisheries enforcement, and maritime security operations and increasing the importance of USCG’s role in protecting U.S. economic, environmental, and national security interests through an expanded and sustained polar presence (USCG 2019).

USCG’s operational polar icebreaking fleet currently consists of one heavy polar icebreaker, CGC *Polar Star* (WAGB-10), and one medium polar icebreaker, CGC *Healy* (WAGB-20) (CRS 2024). A second heavy polar icebreaker, CGC *Polar Sea*, has been non-operational since 2010 following a major engine casualty (CRS 2024). *Polar Star* and *Polar Sea* entered service in the 1970s and have exceeded their original 30-year service lives, while *Healy* is projected to reach its service design life by 2030 (CRS 2024). To address growing mission demands and recapitalize its aging fleet, USCG initiated the Polar Security Cutter Acquisition Program in 2013 to acquire up to six new polar icebreakers, including heavy polar icebreakers, also known as PSCs, and medium polar icebreakers, also known as Arctic Security Cutters (ASCs) (CRS 2024; USCG 2019). PSCs and ASCs are considered “major cutters” alongside Offshore Patrol Cutters (OPCs) and National Security Cutters (NSCs). A 2023 USCG fleet mix analysis concluded that USCG would require a total of eight to nine polar icebreakers, including four to five PSCs and four to five ASCs, to meet projected operational needs in the Arctic and Antarctic (CRS 2024). Because the first PSC is not expected to become fully operational until 2031, USCG determined that additional interim icebreaking capacity is needed to maintain continuous Arctic operations and mission readiness (USCG 2024a). To address this gap, USCG acquired a Commercially Available Polar Icebreaker (CAPI) using funding provided by the 2022 Don Young Authorization Act. The former motor vessel *Aiviq* was purchased in December 2024, modified, and commissioned in 2025 as CGC *Storis* (WAGB-21). As a medium polar icebreaker, *Storis* expands USCG’s Arctic operational presence and supports seasonal mission demands while the PSC fleet is being developed (USCG 2024a).

In accordance with Congressional direction established through the 2022 Don Young Authorization Act, the 2023 National Defense Authorization Act, and the 2025 One Big Beautiful Bill Act, USCG selected Juneau, Alaska, as the homeport for *Storis* and associated shoreside infrastructure improvements. *Storis* is temporarily berthed in Seattle, Washington, alongside USCG’s other polar icebreakers, until required infrastructure improvements are completed in Juneau. A second major cutter may also be homeported in Juneau alongside *Storis*.

2.0 PURPOSE AND NEED FOR THE ACTION

The purpose of the Proposed Action is to provide the necessary waterfront infrastructure to homeport the cutters in Juneau by recapitalizing the existing wharf and constructing a homeport pier with two berths and shore-ties capable of supporting two major cutters simultaneously (USCG 2025a).

Homeporting the cutters in Juneau is needed to support icebreaking, maritime and national security, and sovereignty missions in Alaska and adjacent Arctic waters; enhance responsiveness to regional operations; promote economic prosperity in the Arctic; and provide operational continuity as part of a broader recapitalization of USCG's fleet. To meet these commitments, USCG is undertaking a recapitalization program that will deploy more operational assets to the region and make significant infrastructure improvements to support those assets. Juneau's strategic location and proximity to Arctic operating areas make it well-suited to support sustained deployment of the vessel and associated crew and logistics (USCG 2025b). In its current state, the existing wharf at Station Juneau is inadequate to support the anticipated vertical and horizontal loads of the incoming cutters; a 2025 waterfront inspection described the condition of the western 350 feet of the wharf as "poor" and the eastern 305 feet as "serious." The wharf is in a state of advanced deterioration and primary structural system failure; consequently, USCG has deemed the wharf as beyond repair (USCG 2025a).

3.0 PUBLIC AND AGENCY INVOLVEMENT

Public and agency involvement during the environmental review process informs the public of an agency's proposed action, allows for meaningful engagement during the NEPA process, and ensures that public views inform the decision-makers. In accordance with the requirements of EO 12372, *Intergovernmental Review of Federal Programs*, and USCG's NEPA implementing procedures for COMDTINST 5090.1 (series), USCG is committed to collaborating with local stakeholders to ensure that their concerns are addressed in the NEPA process. USCG notified federal, state, and local agencies with jurisdiction that could be affected by the Proposed Action during SEA development. Appendix A provides copies of the relevant references, materials, and documents related to interagency and intergovernmental coordination, public outreach, and the Draft SEA public comment period. Table A-1 provides a list of agencies and organizations consulted.

USCG initiated scoping with Alaska Native organizations and Federally Recognized Tribes on 30 October 2025 via electronic communications. Two Alaska Native organizations, Goldbelt, Inc. and Huna Totem Corporation (HTC), replied via email between November 2025 and January 2026. The inquiries were unrelated to cultural resources, historic properties, or environmental planning; therefore, USCG did not coordinate project-specific consultation meetings with these entities. USCG made follow-up consultation phone calls to each Tribe on 3 February 2026. On 25 March 2026, in accordance with Section 106 of the National Historic Preservation Act (NHPA), USCG provided a consultation letter and technical memorandum clearly describing the project to each Tribe and Alaska Native organization listed in Table A-1. USCG made follow-up phone calls on 2 March 2026, 4 March 2026, 15 April 2026, 27 April 2026, and 11 May 2026 inviting Tribes and Alaska Native Organizations to participate in project Information Sharing Sessions. The Tribes have not requested consultation as of this document's publication date. Consultation may occur in the future if concerns about cultural resources, historic properties, or environmental planning arise.

USCG invited the parties listed in Table A-1 to participate in Information Sharing Sessions on 30 April 2026 and 21 May 2026. USCG presented preliminary details about the project's purpose and need, environmental planning, design concepts, and engagement and consultation efforts. The meetings took place via teleconference with approximately 60 attendees joining the April call and 36 attendees on the May call. Invitees were notified via phone, provided a summary email with Information Sharing Session details, and received a Microsoft Teams meeting invitation with instructions to join the event. An Open House for the general public is planned for 30 June 2026 from 5:00 to 7:30pm at the Juneau Arts and Culture Center, 350 Whittier Street, Juneau, Alaska 99801.

USCG initiated consultation with the Alaska State Historic Preservation Officer (SHPO) regarding NHPA Section 106 compliance and potential effects on historic properties on 30 October 2025. The SHPO assigned a file number to the project and requested additional information to fully understand the scope of work, ground-disturbing activities, and consultation efforts with local governments and Tribal entities. On 25 March 2026, USCG submitted an updated letter and technical memorandum describing the undertaking in more detail to SHPO, which was assigned a separate file number. SHPO concurred with USCG's finding of No Historic Properties Affected on 14 May 2026.

On 30 October 2025, USCG initiated consultation and coordination with the U.S. Fish and Wildlife Service (USFWS) and NOAA-National Marine Fisheries Service (NMFS) regarding potential effects on species and habitats protected under the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), and Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). As of this document's publication date, communications between USCG and USFWS/NMFS are ongoing. The results of consultation, including Biological Opinions, Incidental Harassment Authorizations (IHAs), and EFH conservation recommendations are documented in Section 5.7 and Appendix B, and any required conservation measures or terms and conditions have been incorporated into the Proposed Action and mitigation measures described in this SEA.

USCG initiated early consultation with the U.S. Army Corps of Engineers (USACE) on 11 February 2026 regarding possible permitting requirements under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA). As of this document's publication date, communications between USCG and USACE are ongoing; no permit has yet been determined to be necessary.

4.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The alternatives presented in this SEA are planning-level configurations intended to capture the range of reasonable approaches for achieving the purpose and need. The project is in a pre-design phase, and therefore the alternatives do not represent final engineering designs. Design details may evolve; however, refinements would be consistent with the environmental impact envelope analyzed in this SEA or would trigger additional NEPA review, as required.

4.1 ALTERNATIVE SELECTION PROCESS

USCG evaluated four alternatives, including the No Action Alternative, to determine the Preferred Alternative for fulfilling the purpose of and need for the Proposed Action. The screening criterion for alternatives was to allow for multiple vessels to moor at the station. USCG screened three unique waterfront wharf and pier configurations and selected the Finger Pier configuration as the Preferred Alternative as it was the only alternative that met the multiple vessel mooring capability criterion established by the purpose and need. This alternative advanced for environmental analysis; as mandated

by NEPA, USCG also advanced the No Action Alternative. Table 4.3-1 presents a summary of the comparative assessment of alternatives.

4.2 DETAILED DESCRIPTION OF THE ALTERNATIVES

The descriptions that follow summarize the conceptual features of each alternative for purposes of environmental analysis.

4.2.1 Proposed Action (Preferred Alternative): Finger Pier

The scope of the Proposed Action (the Preferred Alternative) is to recapitalize the existing waterfront wharf at Station Juneau and construct a two-berth finger pier with shore-ties and an access trestle (Figure D-1). The pier may be either fixed or floating, although a floating pier is currently anticipated. The additional berth would support visiting vessels, resulting in a combined wharf and pier configuration capable of berthing three vessels. In addition, the Proposed Action may include installation of covered moorage on the east end of the wharf to support small boat operations (USCG 2025a).

The Proposed Action would take place in three general phases:

- Phase I: Upgrade site-wide utilities as required to support the existing buildings and station boat complement, future building expansion, and the simultaneous berthing of up to three vessels. Utilities to be upgraded include potable water, electrical service, communications, and fire protection systems.
- Phase II: Demolish the existing timber wharf and construct a new wharf in approximately the same layout, including full shore-tie utility connections, fendering, and mooring hardware.
- Phase III: Construct/install an up to 560-foot-long by 80-foot-wide pier capable of berthing one major cutter on each side, including utilities and associated shore-tie connections, lighting, fendering, and mooring hardware. The pier would connect to the shore by an access trestle.

In support of the homeporting action, USCG proposes to recapitalize the three legacy NOAA buildings to provide Maintenance and Weapons Detachment (MWD) functions and develop the site with parking, sidewalks, and fencing lighting. USCG would first construct a new off-campus NOAA facility to relocate NOAA and ADF&G functions and personnel, after which the ADF&G-owned building would be divested, and USCG would coordinate with the State of Alaska to take possession of the vacant building. The anticipated project sequence is to construct the new facility, relocate personnel and functions, and then recapitalize the three buildings for MWD purposes (USCG 2026a).

In addition, USCG would provide housing for incoming personnel and dependents. Housing is discussed further in Section 5.9. Details of potential housing accommodations and supporting shoreside facilities are still under development and will be analyzed in an SEA, as appropriate.

4.2.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. As the existing USCG marine and shoreside structures, utilities, and support systems at Station Juneau are severely degraded and have exceeded their service life, these waterfront facilities would remain in a state of disrepair, placing USCG operations out of Juneau at risk and compromising national security (USCG 2019, 2025a). The CGC *Storis*

would still be homeported in Juneau, but with no supporting infrastructure, placing additional demand on housing, parking, and traffic.

4.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

4.3.1 Fixed Marginal Wharf

Alternative 1 consisted of a fixed marginal wharf configuration. USCG would demolish the existing timber wharf and construct a new steel and concrete fixed wharf to extend an additional 20 feet from the shore as the existing wharf. The new wharf would be approximately 560 feet long and 214 feet wide and capable of berthing one vessel.

4.3.2 Fixed U-Shaped Wharf

Alternative 2 consisted of a fixed U-shaped wharf configuration. USCG would demolish the existing timber wharf and construct a new wharf in the same footprint. USCG would then construct a new, smaller fixed concrete wharf on steel mooring frames parallel to the shoreline. The new wharf would be approximately 560 feet long and 50 feet wide and capable of berthing one vessel. As part of this alternative, USCG also considered a floating-wharf configuration in which they would reconstruct a new wharf within the footprint of the existing timber wharf and construct a new floating concrete wharf on steel mooring frames parallel to the shoreline. The reconstructed wharf would connect to the shore via two transfer bridges.

Table 4.3-1 Comparative Assessment of Alternatives

ALTERNATIVE	DESCRIPTION	ANTICIPATED EFFECTS
Preferred Alternative (Finger Pier)	Demolition and reconstruction of the existing wharf in the same footprint; construction of a finger pier and covered small boat moorage	- Potential adverse effects on navigation if the pier expands into use areas shared by cruise ships, float planes, and day excursion boats. Mitigation of these effects would include safe maneuvers, communications protocols, and best practices currently used by captains and pilots in present-day operations. - Potential adverse effects from greater wind exposure caused by land use changes. - No significant noise effects during construction phase; construction equipment BMPs would minimize potential adverse effects. No significant noise effects from operation of support infrastructure. - No significant AQ effects during construction phase; BMPs would minimize potential adverse effects. No significant AQ effects during operational phase; additional emergency generator(s) would not require ADEC PAEL permit. - From construction and operational phases: potential minor effects to wetlands with adherence to CWA Section 404 and RHA Section 10 permit requirements; no significant effects on floodplain management from vessel support infrastructure; no significant effects from stormwater with project-specific CGP and SWPPP; no significant effects to groundwater resources. - Potential long-term adverse effects on tidelands or submerged lands in the harbor from recontouring the sea floor to increase the water depth at the pier during the construction phase. USCG would obtain the appropriate USACE permit for discharge of dredged or fill material, to include required mitigation measures to avoid, minimize, or compensate for adverse environmental effects associated with the discharge. USCG would coordinate with CBJ and ADNDR Division of Mining, Land, and Water, as appropriate, to obtain any regulatory approvals and/or property rights required for activities on lands owned by these entities. - Potential adverse effects from generation and disposal of ACM, LBP, creosote-treated pilings, or hazardous waste(s) during demolition. A hazardous materials building survey and demolition BMPs would minimize these effects. No change to Station Juneau's RCRA generator status expected from construction or operational phases; no significant effects. - No effect on terrestrial vegetation, critical habitat, or birds. Terrestrial wildlife and birds would continue to experience existing urban conditions. - Potential long-term adverse effects from habitat alteration, shading, or water-surface changes may occur as a result of the permanent loss of approximately 1 acre of EFH (nearshore marine habitat) beneath the wharf. USCG would mitigate adverse effects by implementing avoidance and minimization measures, BMPs, and NMFS conservation recommendations; no significant effects expected.

Table 4.3-1 Comparative Assessment of Alternatives

ALTERNATIVE	DESCRIPTION	ANTICIPATED EFFECTS
Preferred Alternative (Finger Pier), continued	Demolition and reconstruction of the existing wharf in the same footprint; construction of a finger pier and covered small boat moorage	- Potential adverse effects on marine mammals, fish, and/or other benthic organisms during the construction phase. USCG would minimize impacts from turbidity, sedimentation, siltation, vessel strikes, and underwater noise-related displacement, injury (Level A Harassment), or behavioral disturbance (Level B Harassment) by adhering to SWPPP BMPs, sediment controls, CWA permit requirements, soft starts, trained operators, shutdown zones, seasonal timing restrictions, whale avoidance, and Protected Species Observer monitoring. - Potential long-term beneficial effects to aquatic species from creosote pile removal. - No significant effects on historic properties. - Potential adverse effects on socioeconomics if tourism services in the ROI relocate to accommodate the pier or if the pier encroaches into areas currently used by private or commercial float planes, excursion tours, and cruise ships. - Potential for adverse effects on socioeconomics if suitable housing solutions for incoming USCG personnel and dependents are not identified. USCG is collecting market information and identifying feasible housing solutions to mitigate these effects such as assigning <i>Storis</i> personnel a “geographically separated status” in which crew members would live aboard the cutter in Juneau while their families remain at their previous duty station. - Potential short-term adverse effects on infrastructure and utilities during the construction phase from traffic pattern changes, temporary utility outages, and increased generation of wastewater, stormwater runoff, and C&D waste disposal. - Potential long-term adverse effects during the operational phase resulting in increased traffic congestion and increased parking demand, increased electrical demand, and increased consumption and/or generation of potable water, wastewater, stormwater runoff, and solid waste; effects would not be expected to exceed the capacity of or cause long-term impairment to infrastructure and utilities and would therefore not be significant. - Potential long-term beneficial effects on infrastructure and utilities include the site-wide utility upgrade to the existing buildings and newly constructed pier to support additional personnel and replace existing deteriorating utility lines.
Alternative 1 (Fixed Marginal Wharf)	Demolition of the existing wharf and construction of a new steel and concrete fixed wharf extending an additional 20 feet from the shore than the existing wharf	Not evaluated; alternative dismissed.

Table 4.3-1 Comparative Assessment of Alternatives

ALTERNATIVE	DESCRIPTION	ANTICIPATED EFFECTS
Alternative 2 (Fixed U-Shaped Wharf)	Demolition of the existing wharf and construction of a new wharf in the same footprint and a new, smaller fixed concrete wharf parallel to the shoreline	Not evaluated; alternative dismissed.
No Action Alternative	No wharf recapitalization would occur	- CGC <i>Storis</i> would be homeported in Juneau. - No effect on land use. - No effect from noise. - No effect on AQ. - No effect on water resources. - No effect on hazardous materials or hazardous waste. - No effect on biological resources. - No effect on historic, architectural, archaeological, or cultural resources. - Potential for adverse effects on socioeconomics if the housing shortage is not resolved or cannot support the needs of incoming USCG personnel and dependents associated with the <i>Storis</i>. USCG is collecting market information and identifying feasible housing solutions to mitigate these effects. - The existing infrastructure would continue to deteriorate and would be unable to accommodate the cutter(s) or any additional support vessels.

Notes:

For definitions, refer to Acronyms and Abbreviations list.

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5.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

5.1 SCOPE OF THE ANALYSIS

The 2019 PEIS assessed the potential environmental impacts associated with conducting PSC operations and training activities, including icebreaking, maneuvering, passenger transfer, vessel escort, search and rescue training, and marine environmental response training. The 2024 SEA evaluated the acquisition, homeporting, maintenance, and operation of the *Storis* in Juneau, including transit from Pascagoula, Mississippi, to a temporary homeport with a maintenance facility on the West Coast, and on to Juneau, Alaska. The SEA incorporated the 2019 PEIS by reference and included an analysis of air quality (AQ); noise; bottom habitat and sediment; sea ice; marine vegetation, invertebrates, fish (including EFH), and mammals; seabirds; sea turtles; commercial and recreational fishing; research, transportation, shipping, and tourism; subsistence hunting; and cultural resources. In addition, a Programmatic Environmental Assessment (PEA) evaluating Arctic District training, testing, and navigational operations and associated auxiliary services for major cutters is currently in development and expected to be completed by October 2026. Taken together, these NEPA documents are expected to consider all potential operational activities conducted by the cutter(s) homeported in Juneau while not berthed. Accordingly, this SEA is limited in scope to assessing the potential environmental effects of infrastructure improvements necessary to support the proposed homeporting action at Station Juneau, including recapitalization of the existing wharf and construction of a new pier and covered small boat moorage. The effects of vessel operations are addressed under the aforementioned separate, ongoing NEPA reviews and are not evaluated in this SEA.

If unforeseen significant impacts, or the potential for significant impacts, are found upon completion of compliance with related environmental or historic resource laws and regulations, USCG would supplement, amend, or prepare a new higher level environmental planning document, as applicable.

5.1.1 Document Organization

Based on the screening criteria presented in Section 4.1, only two alternatives were retained for consideration in this SEA (Section 4.2)—the Proposed Action (Preferred Alternative) and the No Action Alternative. Alternatives proposed but eliminated from further consideration are presented in Section 4.3.

Consistent with NEPA, this section describes the environmental resources, human-made or natural, that would be affected by the Proposed Action or the No Action Alternative. Unless otherwise noted, the affected environment/region of influence (ROI) is the area contained within an 850-foot radius of Station Juneau (Figure D-1).

Each resource area evaluation consists of four components:

1. **Definition of Resource** – Establishes the resource area and provides the regulatory framework that governs it. It includes relevant laws, ordinances, regulations, and guidance that apply to the resource, ensuring compliance and consideration of legal requirements in the analysis.
2. **Affected Environment** – Describes the existing conditions of each resource within the ROI at the time of document preparation. It serves as an environmental baseline, offering a snapshot of current conditions against which potential effects can be measured.

3. **Environmental Consequences** – Analyzes the potential environmental effects of the Proposed Action and the No Action Alternative. It considers direct effects, which occur at the same time and place as the Proposed Action; and indirect effects, which may happen later or at a greater distance but remain reasonably foreseeable.
4. **Reasonably Foreseeable Effects** – Analyzes the potential incremental effects of the Proposed Action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Though individual effects may be minor, their collective significance over time is also evaluated.

Table 5.1-1 presents a list of projects/actions (both USCG- and non-USCG-led) occurring at or near Station Juneau that are not part of the Proposed Action identified as relevant for the analysis of reasonably foreseeable effects.

Table 5.1-1 Other Past, Present, and Reasonably Foreseeable Actions Considered

PROJECT	DESCRIPTION	APPROXIMATE IMPLEMENTATION YEAR
Sweetheart Lake Hydroelectric Project	Juneau Hydropower, Inc. plans to construct a new hydroelectric facility with an installed electrical capacity of 19.8 MW, generating an average of 116,000 MWh annually and providing a 25% increase over Juneau's current electrical generation.	2026
Áak'w Landing	HTC proposes to add a cruise ship dock adjacent to Station Juneau, 110 new parking spaces, a 1-acre park, space for three restaurants and retail outlets, an upper-level plaza, a Juneau Seawalk extension, two new totem poles, and an Alaska Native art and culture center.	2027

Notes:

For definitions, refer to Acronyms and Abbreviations list.

Source: Federal Energy Regulatory Commission and U.S. Army Corps of Engineers 2016; Alaska Business 2025

5.1.2 Resource Areas Not Carried Forward for Evaluation

Pursuant to NEPA, this SEA does not provide detailed analysis of environmental resources expected to experience no or negligible effects from the Proposed Action. Implementation of the Proposed Action is not anticipated to result in any long-term adverse effects on safety and occupational health, natural resources, or earth resources. A brief description of each of these resources is provided in this section.

5.1.2.1 Safety and Occupational Health

All construction activities would be conducted in accordance with applicable Occupational Safety and Health Administration (OSHA) requirements and implementing agency safety policies and procedures, including safety data sheets for handling hazardous materials, the use of appropriate personal protective equipment (PPE), and obtaining applicable permits prior to work being performed. Compliance with these existing regulations and procedures would minimize potential risks to workers. Accordingly, the Proposed Action would not result in effects on safety or occupational health and would not pose a risk of acute or chronic hazards to human health. Following construction, Station and vessel operations would proceed in accordance with applicable OSHA requirements and USCG safety policies and procedures. Construction elements would be designed in accordance with the International Building Code and National Fire Protection Association safety requirements, and the proposed wharf would be designed to support fire trucks and other emergency response vehicles.

5.1.2.2 Natural Resources

The area surrounding Station Juneau is fully developed and consists of existing maritime and industrial infrastructure. Because the Proposed Action would occur entirely within previously developed areas and would not disturb naturally occurring resources such as mineral deposits, fossil fuels, or timber, the Proposed Action would not result in effects on natural resources.

5.1.2.3 Earth Resources

Construction would not involve major grading, and all improvements would be designed and constructed in accordance with Unified Facilities Criteria seismic standards. Implementation of the Proposed Action is not expected to result in effects on regional geology, topography, or soil.

5.2 LAND USE

5.2.1 Definition of Resource

“Land use” is the term used to describe the human use of land. It represents the economic and cultural activities (e.g., agricultural, residential, industrial, mining, and recreational uses) that are practiced at a given place (U.S. Environmental Protection Agency [EPA] 2026a). Management plans and zoning regulations determine the type and extent of land use allowed in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

5.2.2 Affected Environment

The ROI for Land Use is the footprint where demolition and construction for the Proposed Action would occur along the waterfront and in Gastineau Channel.

Station Juneau is a 17,000-square-foot facility established in 1964 on a 1.12-acre property that includes the station building, a parking area, and a 350-foot wharf with an 85,000-square-foot wooden dock and outdoor storage areas (USCG 2024b). In 2024, USCG assumed ownership of an adjacent legacy NOAA property comprising a 305-foot timber wharf, a 50-foot mooring dolphin to the west, utilities, and three support buildings on 2.39 acres (2.02 acres of land and approximately 0.38 acres of tideland) (USCG 2025a, 2026a).

The tide- and submerged lands from the mean high tide line to approximately 400 feet into Gastineau Channel were conveyed by the Alaska Department of Natural Resources (ADNR) to the City and Borough of Juneau (CBJ) in 1962 under Alaska Division of Lands case file number 2335; ADNR owns the lands beyond this point (ADNR 2026a; Keith, T., personal communication, 21 May 2026). Together, the USCG and NOAA wharves total 655 feet in length, plus the 50-foot dolphin (USCG 2025a).

Station Juneau is located within several urban tracts containing commercial buildings with large, paved parking lots and several modern buildings associated with maritime activities. Egan Drive, the road on which Station Juneau is located, is a major thoroughfare that runs along the coast, with commercial activity to the north and the waterway to the south. Commercial buildings near Station Juneau include restaurants, hotels, recreational facilities, a convention center, and a media company. Station Juneau is bounded to the north by Egan Drive, to the east by large commercial buildings, to the south by Gastineau Channel, and to the west by an empty lot and a restaurant with an event space (USCG 2020a).

The Juneau Harbors system is a managed network of municipal waterfront facilities in Juneau, including Aurora Harbor (the largest), Douglas Harbor, Statter Harbor, and multiple boat launches. The CBJ Docks

and Harbors Department manages several small boat harbors and small boat floats, six launch ramps, two commercial loading facilities, two boat yards, and several hundred acres of tidelands and waterfront properties under lease. Additionally, the Department manages two cruise ship docks on the downtown waterfront. Two private cruise ship docks are also present in the downtown waterfront area. The downtown Juneau cruise ship berths are approximately 820 feet southeast of the USCG dock and facilities along the downtown waterfront. The two CBJ-owned cruise ship docks serve more than one million passengers in a typical season (May to September) and provide berthing for one Panamax ship up to 1,000 feet in length and one post-Panamax ship up to 1,100 feet in length. Public amenities in this area include a pedestrian promenade, Visitor Center Building, bus staging, public parking, and a Port/Customs building housing the Port of Juneau Field Office and U.S. Customs and Border Protection. Other amenities nearby include a grocery store, restaurants, gift shops, coffee shops, a public library, a post office, and public transportation (CBJ 2026a).

In addition to the cruise ship industry, several tour operators and guiding services conduct business in the area each year. The three tour operators located closest to the Proposed Action area are Wings Airways and Taku Lodge, Alaska Shore Excursions, and Juneau Tours and Whale Watch. The Wings Airways and Taku Lodge is less than 1 mile east of the project site along Egan Drive. Alaska Shore Excursions has onshore facilities on Admiral Way less than 0.5 miles from the main cruise ship dock, and Juneau Tours and Whale Watch hosts a check-in desk on the downtown cruise ship dock near the pedestrian promenade. Gastineau Guiding has onshore facilities just over 1 mile southeast of the project site. These services use float planes and small boats in the vicinity of Station Juneau.

Seafood processing is an established enterprise in Southeast Alaska and along Gastineau Channel; however, only one processor operates within the ROI. Taku Fisheries sends daily tenders from the docks to fishing vessels on the open water to transfer the catch and transport seafood back to its onshore processing plant in Juneau (Taku Fisheries 2026). The processor is easily accessible to cruise ship passengers via the pedestrian promenade.

5.2.3 Environmental Consequences

5.2.3.1 Proposed Action

The Proposed Action is not identified in the Juneau Small Cruise Ship Infrastructure Master Plan (CBJ 2020); however, the most recent Comprehensive Plan identifies “working cooperatively with federal agencies to ensure that existing jobs stay in Juneau, and that agencies have access to the facilities and infrastructure required to support their mission in Juneau” as one of the plan’s policy goals. The implementation action supporting this policy is to “continue to work on extending the North Douglas Highway to a deepwater port site on the west coast of Douglas Island, and on providing a northern crossing of Gastineau Channel, so as to better accommodate the USCG and its mission in Southeast Alaska” (CBJ 2013). The Proposed Action would benefit CBJ in meeting its goal by accommodating USCG’s mission in Southeast Alaska.

The Proposed Action could adversely affect the operation of large cruise ships, float planes, and day excursion boats if the new pier encroaches into areas currently used by those modes of transportation, and expansion of marine facilities in the area may increase vessel exposure to prevailing winds by extending berthing areas farther from existing shoreline protection and reducing local wind shielding within the harbor (CBJ 2020); however, a 2025 navigational study conducted ship simulation runs under a variety of environmental conditions, including wind, sea, swell, tide, and current. The results demonstrated that the Proposed Action would not interfere with safe navigation of cruise ships in the

Port. Therefore, no adverse effects are anticipated (USCG 2025c). Safety measures and communications protocols would mitigate any potential waterway congestion while USCG, fishing, or tourism vessels are transiting Gastineau Channel. These may include sequencing arrivals and departures and ensuring that anchorage remains empty during maneuvers (USCG 2025c).

Recontouring of the sea floor to increase the water depth may be required and, if implemented, could require dredging that may have long-term adverse effects on the tidelands or submerged lands in the harbor. Potential dredging associated with the Proposed Action is further analyzed in Sections 5.5.3.1 and 5.7.3.1.

Waterfront infrastructure improvements would generally occur on tide- and submerged lands owned by CBJ within approximately 400 feet of the mean high tide line. However, the proposed pier would extend beyond CBJ's jurisdictional boundary into ADNR-owned lands (greater than 400 feet from the mean high tide line). USCG would coordinate with CBJ and ADNR Division of Mining, Land, and Water, as appropriate, to obtain any regulatory approvals and/or property rights required for activities on lands owned by these entities.

Any new housing development associated with the Proposed Action would be subject to applicable local land use, permitting, and zoning requirements. The details of potential housing accommodations are still under development and will be evaluated in an SEA, as appropriate.

5.2.3.2 No Action Alternative

There would be no effect on land use in the ROI under the No Action Alternative because existing conditions would not change. USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. No construction or demolition would occur, and the existing USCG facilities would continue to deteriorate. The current wharf and supporting infrastructure would not be able to accommodate the *Storis* or USCG's mission in Southeast Alaska and site-wide utilities would not be upgraded. There would be no effect on tidelands and property ownership would remain the same.

5.2.4 Reasonably Foreseeable Effects

HTC is planning a waterfront improvement project (Áak'w Landing) that would construct a new cruise ship pier west of the ROI capable of accommodating up to 4,500 passengers. HTC is expected to complete development in 2027 (HTC 2025). If this project is completed, there could be up to five cruise ships in Gastineau Channel at any time, depending on the season. The HTC pier would be constructed with shore power capability and would include underground parking, retail space, and a culture and science center located along Egan Drive next to Station Juneau (HTC 2025; KTOO 2025a). Áak'w Landing would provide year-round public use for events and cultural education (HTC 2025). These upgrades, in conjunction with USCG's proposed new facilities and utilities, would have a beneficial effect on infrastructure in the ROI along Egan Drive and in the harbor.

Under HTC's conditional use permit, development cannot impede the downtown seawalk, and HTC must provide electrified shore power within 2 years after a power line is built within 25 feet of its property line, after which all large ships using the dock would be required to use shore power instead of ship power. Another condition of the approval requires HTC to furnish written assurance that the cruise ship will not obstruct USCG's homeporting plans (KTOO 2025a). These conditions would have a beneficial effect on land use planning and navigation communications in the channel. The Áak'w Landing project would also be beneficial as it aligns with community planning goals to "maintain and strengthen downtown Juneau

as a safe, dynamic, and pleasant center for government and legislative activities, public gatherings, cultural and entertainment events, and residential and commercial activities in a manner that complements its rich historic character and building forms” (CBJ 2013).

5.3 NOISE

5.3.1 Definition of Resource

Sound is a physical phenomenon that occurs when vibrations travel through a medium, such as air. Sound is sensed by the human ear, which responds according to the type (frequency and intensity), source, distance, receptor sensitivity, and time of day. Noise is defined as any sound that is undesirable, intrusive, or intense enough to cause hearing damage. Noise frequencies and sources can be inconsistent or constant and steady or sporadic. The human ear does not perceive all frequencies of noise equally; low and very high-frequency noises are de-emphasized. The A-weighted sound level (dBA) is used to represent the selective sensitivity of human hearing.

Noise may affect wildlife and green spaces through disruption of nesting, foraging, migration, and other life-cycle activities, or human environments such as schools, hospitals, or residential areas. Proper noise analysis requires assessing physical sound measurements and the resulting physical, physiological, psycho-acoustic, and socio-acoustic effects, as well as evaluating potential changes to the existing noise environment(s) that would result from implementing the Proposed Action and alternative(s).

Generally, environmental sound levels are described over time and can be either steady or change. Two common ways to measure these levels are the Equivalent Continuous Sound Level (L_{eq}), which represents the average noise level over a defined period of time based on the total energy of the sound, and the Maximum Sound Level (L_{max}), which is the highest sound level measured at any moment during that time.

5.3.2 Affected Environment

The ROI for Noise is the general vicinity of the project footprint, where construction and demolition (C&D) and Station Juneau operations would occur. Noise-sensitive receptors are defined as locations where unwanted noise can be disruptive and have potentially adverse effects on the occupants or users of such spaces, such as residential areas, schools, daycares, hospitals, and places of worship. Figure D-2 and Table E-1 present noise-sensitive receptors identified within a 1-mile buffer of the Proposed Action. In addition, there are multiple residential neighborhoods within and near downtown Juneau and on Douglas Island.

5.3.3 Environmental Consequences

The primary factor considered in determining the significance of noise effects is the extent to which the action would affect the baseline noise environment. Significant noise effects would occur if the action exposes sensitive human receptors to substantially higher levels of noise.

5.3.3.1 Proposed Action

Noise effects from the Proposed Action would occur during the C&D phase required to establish the infrastructure needed for homeporting the vessel.

The use of multiple pieces of equipment to carry out the Proposed Action would generate construction noise. Table 5.3-1 presents the equipment assumed to be necessary to carry out the cutter homeporting

project, the typical noise levels 50 feet from the equipment source ($L_{\max}$), and the estimated number of each type of equipment needed.

Table 5.3-1 Construction Equipment Noise Emission Levels

EQUIPMENT	TYPICAL NOISE LEVEL 50 FEET FROM SOURCE ($L_{\max}$)	ESTIMATED NUMBER NEEDED FOR PROPOSED ACTION
Backhoe	80 dBA	1
Crane Derrick	88 dBA	2
Dozer	85 dBA	1
Dump Truck	84 dBA	1
Excavator	85 dBA	1
Front End Loader	80 dBA	1
Mobile Crane	83 dBA	2
Telehandler	88 dBA ¹	1
Truck	55 dBA	4
Floating Dredge Unit	82 dBA	1

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: Federal Transit Administration 2018; FHWA 2006; HOLCIM n.d.

¹ Assumed same $L_{\max}$ as crane derrick.

The Proposed Action would generate a noise footprint that would come within 550 feet of the closest of 41 identified noise-sensitive receptors, detailed in Table E-1. The Federal Highway Administration (FHWA) has established example construction noise criteria limits for noise-sensitive locations (Table 5.3-2).

Table 5.3-2 Construction Noise Criteria Limits for Noise-Sensitive Locations

DAYTIME (0700-1600) $L_{\max}$	EVENING (1800-2200) $L_{\max}$	NIGHTTIME (2200-0700) $L_{\max}$
85 dBA (non-impact)	85 dBA	80 dBA
90 dBA (impact)	85 dBA	80 dBA

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

For the purposes of the construction noise analysis, all pieces of construction equipment are assumed to operate simultaneously in the same area and generate the maximum noise level (Table 5.3-1). The resulting combined $L_{\max}$ of all equipment, used to conservatively represent the construction noise generated by the Proposed Action, is calculated to be 95 dBA (Appendix E, Noise Attenuation Calculation).

When the FHWA Roadway Construction Noise Model is applied to the calculated $L_{\max}$ of 95 dBA for the Proposed Action, the noise from construction would travel 159 feet before attenuating to less than 85dBA. This model assumes the noise would spread in a hemispherical fashion, over hard ground with no barriers. None of the 41 noise-sensitive receptors identified in Table E-1 would experience elevated noise levels during the construction phase occurring closest to them. The closest noise-sensitive receptor, the Tidelands Neighborhood residential area, is 700 feet away and would experience construction noise of 72 dBA. Work would occur Monday through Friday for approximately 8 to 10 hours per day with no nighttime work. Consequently, there would be no significant effects from noise as a result of the Proposed Action. Noise-reducing measures such as fitting equipment mufflers, installing acoustic barriers, selecting

low-noise equipment where possible, and limiting hours of operation would reduce noise levels and minimize disruption caused by exposure to project-related noise.

Once homeporting support infrastructure has been established, there would be minimal changes to the existing noise profile of Station Juneau operations; one or more diesel-powered emergency generators would be installed to provide service to the pier in the event of a power supply interruption; however, the use of these generators would be infrequent and temporary in nature, and therefore, no significant effects from operational noise would be expected.

The Proposed Action's underwater noise effects are analyzed under Section 5.7.3. Noise effects from vessel operations will be analyzed under the PEA for Arctic District training, testing, and operations.

5.3.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. Consequently, there would be no noise effects associated with C&D of homeporting infrastructure, and no effect from homeporting the *Storis* in Juneau (USCG 2019, 2024a).

5.3.4 Reasonably Foreseeable Effects

The Proposed Action, along with present and reasonably foreseeable actions in the vicinity of Station Juneau, could have adverse effects on the noise environment if multiple projects are carried out simultaneously. By implementing best management practices (BMPs) and work scheduling adjustments described in Section 5.3.3.1, the Proposed Action would not contribute a significant effect from noise, and there would be minimal contribution to combined noise effects. No significant effects would occur on the surrounding environment.

5.4 AIR QUALITY

5.4.1 Definition of Resource

The Clean Air Act (CAA) of 1970 (42 USC 7401 et seq.) requires federal agencies to consider the potential effects of a proposed action on AQ, which is defined in terms of ambient air concentrations of specific pollutants determined by EPA to be of concern with respect to public health and welfare.

Most air pollutants are derived from anthropogenic sources and may be mobile, stationary, or indoor; examples include vehicles, refineries, building materials, and cleaning solvents. Natural sources, such as volcanic emissions or wildfires, may also affect the AQ of an area. Primary pollutants are produced by both anthropogenic and natural sources. Secondary pollutants may form in the atmosphere through chemical reactions among these primary pollutants (precursors), influenced by weather, ultraviolet light, and other atmospheric processes.

EPA has developed National Ambient Air Quality Standards (NAAQS) for six major pollutants of concern, called "criteria pollutants": carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂; used as an indicator pollutant for the larger nitrogen oxides [NO_x] group), ozone (O₃), total suspended particulate matter less than or equal to 2.5 (PM_{2.5}) and 10 (PM₁₀) micrometers in aerodynamic diameter, and lead (Pb). Air pollution is the presence of these criteria pollutants in concentrations exceeding EPA standards. Alaska accepts federal NAAQS with the addition of anhydrous ammonia (NH₃), referred to as Alaska Ambient Air Quality Standards (AAAQS) (Table 5.4-1). NAAQS may include primary and/or secondary

standards: primary standards are protective against adverse health effects, while secondary standards are protective against welfare effects, such as crop, vegetation, or building damage. If AQ in a geographic area meets or is cleaner than the national standard, it is called an attainment area. Areas that do not meet the national standard are called nonattainment areas (EPA 2025a). If an area was previously a nonattainment area but now meets the standard, it is called a maintenance area. Maintenance areas must have an approved maintenance plan to meet and maintain AQ standards.

The EPA General Conformity Rule applies to federal actions that take place within a nonattainment or maintenance area. If the total emissions of nonattainment pollutants or precursors—including both direct emissions, such as exhaust from construction equipment or onsite generators, and indirect emissions, such as increased vehicle traffic or electricity usage caused by the project—exceed an established threshold, a conformity analysis must be conducted. Juneau is located in a nonattainment area for PM₁₀; therefore, the General Conformity Rule applies.

Air pollutant emissions in Alaska are regulated by the Alaska Department of Environmental Conservation (ADEC), to which EPA has designated the authority to enforce CAA requirements. Alaska Administrative Code (AAC) Title 18 Chapter 50 establishes Alaska’s AQ regulations, which provide emissions thresholds above which a stationary source of air pollution must obtain a minor (Title I) or major (Title V) AQ permit. The Title V Program also issues permit avoidance approvals such as Owner Requested Limits and Pre-Approved Emission Limits (PAEL).

18 AAC 50.230 establishes PAELs for small stationary diesel engine installations. PAEL requirements are designed to limit potential emissions to less than 40 tons per year (tpy) of NO_x, thereby avoiding the requirement for an AQ control minor permit under 18 AAC 50.502(c)(1)(B) (ADEC 2026a). The calculation for determining the potential to emit (PTE) for emergency generators is derived from EPA’s 6 September 1995 guidance, which provides the following formula:

$$\text{Total backup emergency hp} \times \frac{0.031 \text{ lbs NO}_x}{\text{hp-hour}} \times \frac{500 \text{ operating hours per year}}{2,000 \text{ lb per ton}} = \text{NO}_x \text{ PTE from engines}$$

Where:

Hp = horsepower

Hp-hour = horsepower hour

lb = pounds

NO_x = nitrogen oxides

PTE = potential to emit

Table 5.4-1 National Ambient Air Quality Standards and Alaska Ambient Air Quality Standards

POLLUTANT	AVERAGING TIME	NAAQS PRIMARY	NAAQS SECONDARY	AAQs
CO	8-hour	9 ppm	N/A	10 mg/m ³
	1-hour	35 ppm	N/A	40 mg/m ³
SO ₂	Annual	N/A	N/A	80 µg/m ³
	24-hour	N/A	N/A	365 µg/m ³
	3-hour	N/A	0.5 ppm	1,300 µg/m ³
	1-hour	75 ppb	10 ppb	396 µg/m ³
NH ₃	8-hour	N/A	N/A	2.1 mg/m ³
NO ₂	Annual	53 ppb	53 ppb	100 µg/m ³
	1-hour	100 ppb	N/A	188 µg/m ³

Table 5.4-1 National Ambient Air Quality Standards and Alaska Ambient Air Quality Standards

POLLUTANT	AVERAGING TIME	NAAQS PRIMARY	NAAQS SECONDARY	AAQs
O ₃	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
PM _{2.5}	Annual	9 µg/m ³	15 µg/m ³	12 µg/m ³
	24-hour	35 µg/m ³	35 µg/m ³	35 µg/m ³
PM ₁₀	24-hour	150 µg/m ³	150 µg/m ³	150 µg/m ³
Pb	Rolling 3-month average	0.15 µg/m ³	0.15 µg/m ³	0.15 µg/m ³

Notes:

For definitions, refer to Acronyms and Abbreviations list.

Source: EPA 2025b

5.4.2 Affected Environment

The ROI for AQ is CBJ.

In 1991, EPA designated the Mendenhall Valley area as a moderate nonattainment area for PM₁₀ based on violations that occurred during the 1980s. A State Implementation Plan (SIP) for the nonattainment area was approved in 1994, and in 2013, EPA approved the first 10-year Limited Maintenance Plan (LMP) and concurrently redesignated the area to attainment for PM₁₀. A second LMP was approved in 2021 describing how CBJ currently meets and will continue to meet NAAQS standards for PM₁₀ through 2033 (ADEC 2026b).

The second 10-year LMP strategy focuses on controlling wood smoke emissions and fugitive dust sources through establishment of and adherence to the control measures summarized in Table 5.4-2.

Table 5.4-2 State and Local Measures for Controlling Wood Smoke and Fugitive Dust

CONTROL MEASURE	DATE ADOPTED	DESCRIPTION
18 AAC 50 Section 075	5/6/2009	Established wood-fired heating device visible emission standards.
Ordinance of CBJ, Serial No. 2008-28	2/20/2009	Amended the CBJ Woodsmoke Control Program regarding solid fuel-fired burning devices.
Ordinance of CBJ, Serial No. 93-39am	11/17/1993	Created and set boundaries for the drainage and paving of portions of CBJ Local Improvement District No. 77.
Ordinance of CBJ, Serial No. 93-06	4/5/1993	Created and set boundaries for the regrading and surfacing of portions of CBJ Local Improvement District No. 76.
Ordinance of CBJ, Serial No. 93-01	2/8/1993	Created and set boundaries for the regrading and surfacing of portions of CBJ Local Improvement District No. 75.
Resolution of CBJ, Serial No. 1612	12/7/1992	Resolved to adopt a Joint Memorandum of Understanding between ADEC, ADOT&PF, and CBJ (finalized 1/6/1993) sharing responsibility and authority for resolving the PM ₁₀ nonattainment problems associated with road dust in the Mendenhall Valley.
Ordinance of CBJ, Serial No. 91-53	1/6/1992	Amended the Woodsmoke Control Fine Schedule to increase the fines for violations of the Woodsmoke Control Code.

Table 5.4-2 State and Local Measures for Controlling Wood Smoke and Fugitive Dust

CONTROL MEASURE	DATE ADOPTED	DESCRIPTION
Ordinance of CBJ, Serial No. 91-52	1/6/1992	Amended the Woodsmoke Control Code to lower the particulate count threshold for declaring air alerts and prohibit the burning in woodstoves of substances other than paper, cardboard, and untreated wood.

Notes:

For definitions, refer to Acronyms and Abbreviations list.

Source: EPA 2025c

Station Juneau is served by one Cummins DGFA model diesel-powered generator with a brake hp of 277 (Cummins Power Generation Inc. 2008). The emergency generator was installed in 1999 and serves as a backup source of electricity in the event of a power supply interruption. Using the formula presented in Section 5.4.1, the emergency generator at Station Juneau has a PTE of 2.15 tpy NO_x. The PTE is less than the regulatory threshold of 40 tpy NO_x and the facility does not require a minor permit.

5.4.3 Environmental Consequences

Effects on AQ would be considered significant if the Proposed Action would jeopardize the attainment status of the affected air basin.

5.4.3.1 Proposed Action

The Proposed Action's effects on AQ are analyzed for the C&D associated with establishing the infrastructure required to homeport the vessel. These activities would likely result in emissions generated from the following sources:

- Fugitive dust from the operation of vehicles on unpaved surfaces
- Emissions from the operation of construction equipment such as pickup trucks, steam rollers, portable generators, dump trucks, and excavators
- Fugitive dust and emissions from trenching, excavation, concrete work, asphalt paving, and landscaping

USCG would implement BMPs to minimize AQ effects from the Proposed Action. These BMPs would include keeping construction equipment in good working order and serviced according to a maintenance program to sustain peak operating efficiency, potentially reducing energy consumption and associated emissions. To reduce fugitive dust emissions, USCG may employ minimization measures such as regular application of water or an approved chemical dust suppressant or placing limitations on vehicle and equipment speeds, particularly on unpaved surfaces.

USCG would not expect emissions released into the immediate environment to contribute to or violate any applicable AQ standards. Local AQ is expected to return quickly to ambient conditions following C&D. There would be no significant effects on AQ from the Proposed Action.

Operational impacts to AQ would also be expected to be minimal; USCG would install one or more diesel-powered emergency generators to provide service to the pier in the event of a power supply interruption. Assuming that the new emergency generator(s) are to the same specification as the existing equipment, the installation can support up to 18 total generators before the PTE exceeds the threshold of 40 tpy NO_x, thereby triggering the requirement for a PAEL.

5.4.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. Therefore, there would be no AQ effects associated with C&D to establish homeporting infrastructure, and no effect from homeporting the *Storis* in Juneau (USCG 2019, 2024a).

5.4.4 Reasonably Foreseeable Effects

The Proposed Action in combination with past, present, and reasonably foreseeable actions in the vicinity of Station Juneau could have adverse effects on AQ if multiple projects are carried out simultaneously. Adherence to the permitting requirements in 18 AAC 50, as applicable, and implementation of BMPs as described in Section 5.4.3.1 would minimize the effects from combined emissions. AQ effects are not expected to exceed the threshold of significance.

5.5 WATER RESOURCES

5.5.1 Definition of Resource

Water resources are surface waters and groundwater that provide drinking water and support recreation, transportation, commerce, industry, agriculture, and aquatic ecosystems, including navigable waters, tributaries of navigable waters, non-navigable interstate waters and their tributaries, non-navigable intrastate waters whose use or misuse could affect interstate commerce, and freshwater wetlands. Disruption of any one component of the watershed can affect the entire system (EPA 2026b).

Water resources relevant to the ROI include wetlands, floodplains, surface waters, and groundwater.

5.5.1.1 Wetlands

Wetlands are an important natural system and habitat because of their diverse biologic and hydrologic functions, including water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat provision, and erosion protection.

Wetlands are considered a special category of waters subject to federal regulation under Section 404 of the CWA (33 USC 1251 et seq.) and EO 11990, *Protection of Wetlands*. USACE and EPA jointly define wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (Title 33 Code of Federal Regulations [CFR] Part 328.3 [USACE] and 40 CFR 230.41 [EPA]).

USACE has regulatory authority over certain waters, including wetlands and other aquatic features such as streams, rivers, lakes, and ponds. Activities that involve the discharge of dredged or fill material into these waters generally require authorization from USACE under CWA Section 404. For regulatory purposes, wetlands are assessed as a subset of these waters. Jurisdictional wetlands are those that fall under USACE regulatory jurisdiction and meet the three environmental parameters defined in the USACE Wetlands Delineation Manual (1987): vegetation, soils, and hydrology. Unless an area has been altered or represents a rare natural situation, indicators of all three parameters must be present during some portion of the growing season for it to be considered a wetland.

EPA regulations govern the CWA Section 401 certification process. The CWA authorizes states and Tribal governments to review and approve, condition, or deny water quality certification requests for projects, actions, and activities that directly affect jurisdictional waters. In Alaska, ADEC is the state agency authorized to make these determinations. Under Section 401, federal agencies (such as USACE) cannot issue a permit or license before ADEC either makes a determination on the certification request or waives its right to review. Any conditions set by ADEC then become conditions of the federal permit or license.

5.5.1.2 Floodplains

EO 11988, *Floodplain Management*, defines floodplains as lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands and including, at a minimum, that area subject to a 1% or greater chance of flooding in any given year (also known as the 100-year flood or base flood). Floodplains are valued for their natural flood and erosion control, enhancement of biological productivity, and socioeconomic benefits and functions. EO 11988 requires federal agencies to avoid, to the extent possible, the long and short-term adverse effects associated with the occupancy and modification of 100-year floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

EO 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, amended EO 11988 and established the Federal Flood Risk Management Standard to improve the nation's resilience to current and future flood risks, which are anticipated to increase over time. EO 13690 calls for agencies to use a higher vertical flood elevation—and corresponding expanded horizontal floodplain—than the 100-year floodplain when planning federally funded projects.

5.5.1.3 Surface Waters

Surface waters include natural, modified, and constructed water confinement and conveyance features above groundwater that may or may not have a defined channel and discernable water flows. Stormwater is surface water generated by precipitation events that may percolate into permeable surficial sediment or flow across the top of impermeable or saturated surficial areas, a condition known as runoff. Stormwater is a key component of surface water systems because of its potential to introduce sediments and other contaminants. Stormwater runoff, which increases with a high percentage of impermeable surfaces, is important to surface water management.

National Pollutant Discharge Elimination System

CWA Section 402 established the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates discharge of specific pollutants into surface waters according to EPA standards. Administered at the state level by ADEC, the Alaska Pollutant Discharge Elimination System (APDES) program manages stormwater discharges through different NPDES permits based on activity type. Under APDES, industrial facility operators are required to obtain a Multi-Sector General Permit (MSGP), while construction site operators disturbing 1 acre or more where discharges enter waters are required to obtain a Construction General Permit (CGP). Both permits require operators to submit a Notice of Intent (NOI) to discharge stormwater and develop a Stormwater Pollution Prevention Plan (SWPPP), which is implemented during construction for CGP holders and throughout facility operations for MSGP holders. Operators are also required to employ BMPs to prevent or reduce the discharge of pollutants to waters, including treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (ADEC 2025a, 2025b).

In addition, CWA Section 401 requires state certification for NPDES permits to confirm compliance with state water quality standards and regulations.

Rivers and Harbors Act Section 10

Section 10 of the RHA of 1899 requires USACE authorization for the construction of any structure in or over any navigable water of the U.S. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the U.S., and applies to all structures, including wharves, dolphins, bank protection (e.g., rip-rap, revetment, bulkhead), mooring structures such as pilings, boat ramps, and any other permanent or semi-permanent obstacle or obstruction (USACE 2026).

The Alaska Dredge Material Evaluation Framework provides a framework for assessing and characterizing dredge material to determine its suitability for aquatic discharge; for characterizing the post-dredge surface with respect to applicable sediment quality standards; and for ensuring that USACE Civil Works project and Department of the Army permits comply with CWA 404(b)(1) guidelines (USACE et al. 2024).

5.5.1.4 Groundwater

Groundwater is subsurface water that occupies the space between and within sand, clay, and rock formations, creating saturated zones beneath the land surface (U.S. Geological Survey [USGS] 2018). Groundwater can typically be described in terms of its depth from the surface, aquifer or well capacity, water quality, surrounding geologic composition, and recharge rate.

5.5.1.5 Wild and Scenic Rivers

The Wild and Scenic Rivers Act (WSA) of 1968 (16 USC 1271 et seq.) established the National Wild and Scenic Rivers System (National System) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The WSA is notable for safeguarding the special character of Wild and Scenic Rivers (WSR), while recognizing the potential for their appropriate use and development (National System 2026a). The four federal agencies charged with safeguarding the National System are U.S. Department of the Interior Bureau of Land Management, National Park Service (NPS), USFWS, and the U.S. Forest Service (USFS).

The Nationwide Rivers Inventory (NRI) is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more “outstandingly remarkable” natural or cultural values judged to be at least regionally significant. NRI river segments are potential candidates for inclusion in the National System (NPS 2026). Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries.

Alaska has approximately 365,000 miles of rivers, of which 3,210 miles (25 rivers) are designated as WSRs. There are no designated WSRs in the ROI (National System 2026b); therefore, this SEA does not analyze this resource area further.

5.5.2 Affected Environment

The ROI for Water Resources is Gastineau Channel in the project area and nearby streams.

5.5.2.1 Wetlands

A review of the USFWS National Wetlands Inventory (NWI) (USFWS 2026a) indicates that approximately 23.46 acres of Estuarine and Marine Wetland habitat occur immediately adjacent to the ROI, extending westward from the project area. Substrate in this area is regularly flooded and exposed by tides and is dominated by vegetation that grows on or below the water surface. The entire Gastineau Channel surrounding the project area to the south and east is classified as Estuarine and Marine Deepwater habitat, with an unconsolidated bottom composed of at least 25% fine particle cover and less than 30% vegetative cover, remaining continuously submerged by tidal water. Estuarine systems such as these consist of deepwater tidal habitats and adjacent tidal wetlands connected to the open ocean, at least occasionally diluted by freshwater runoff from the surrounding land (USFWS 2026a).

5.5.2.2 Floodplains

The Federal Emergency Management Agency (FEMA) classifies the downtown waterfront area as a VE flood zone, a high-risk coastal area in the 100-year floodplain with additional hazards due to storm-induced velocity wave action (FEMA 2026). Factors such as heavy snowpack, temperature fluctuations, and precipitation influence flooding in Juneau. The most serious flooding occurs when peak stream flows coincide with high tides, causing streams to back up and flood at higher elevations. High winds and high tides create storm surge and wave run-up in coastal areas. In addition to these natural flooding sources, contributions to increased flooding include inadequate culverts, culvert siltation, developments that encroach onto and obstruct natural floodplains, and blockage by debris and ice contribute to increased flooding (FEMA 2020).

5.5.2.3 Surface Waters

Water bodies in or near the ROI include Gastineau Channel, Gold Creek, Kowee Creek, and Lawson Creek, which drain into the ocean via Stephens Passage, Frederick Sound, and the Big Hazy Inlet (Figure D-3).

Limited information is available on existing surface water quality conditions in the project area. According to the ADEC Water Quality Map, there are no impaired surface waters in Gastineau Channel, Stephens Passage, Frederick Sound, or Big Hazy Inlet (ADEC 2026c). The ADEC *2024 Integrated Water Quality Monitoring and Assessment Report* classifies several rivers north of the project area as impaired and states that information is being attained for the north half of Gastineau Channel, including the project area (ADEC 2025c).

Station Juneau activities do not fall under any of the industrial sectors regulated by the ADEC MSGP. Stormwater is directed from Station Juneau to Gastineau Channel, and the unit does not have a SWPPP (USCG 2024c).

5.5.2.4 Groundwater

Groundwater is prevalent in Juneau but varies in depth and abundance. A bedrock bench covered by alluvium and slope wash material lies between the mountains and the ocean throughout most of the area. This cover material is relatively thin, likely thickening toward the mountains. Precipitation easily soaks into the alluvium and slope wash and gradually percolates down to the water table, eventually moving toward the sea. Glacial till, known locally as “blue clay,” is present in the area along with alluvium and slope wash material. This glacial till is characterized by a composition of non-sorted clay, sand, and stones along with a blue-gray color (USGS 1955). Water does not penetrate the till easily, meaning the till acts as a floor for near-surface groundwater. Outwash sand and gravel or alluvium laid down prior to till

deposition may be found under the glacial till and are likely water-bearing. Underlying bedrock is greenstone or greenstone schist on the Juneau side of Gastineau Channel and black slate on the Douglas Island side of the channel; both are well fractured in exposed outcrops. Fractures and openings along the bedding plain likely allow water to circulate through the bedrock. Outwash plains of major creeks contain sorted sands and gravel deposited by the creek and are poorly drained (USGS 1955).

Juneau's water supply relies heavily on groundwater; the Last Chance Basin wellfield in the Gold Creek watershed northwest of the ROI provides two-thirds of the city's drinking water (CBJ 2013) (Figure D-3). The thickness of glacial till in the area varies greatly, and interbedded layers of sand and gravel, if extensive enough, may provide an adequate supply of water for a well. Six groundwater wells in the State of Alaska Well Log Tracking System (WELTS) database are located within 1,000 feet of the ROI boundary (Table 5.5-1; Figure D-4). The State of Alaska Department of Education and Early Development-owned well is the only identified well used for drinking water. Four of the six wells are used for cooling water, and the remaining well is used by the Juneau Power Plant (ADNR 2026a).

Table 5.5-1 Offsite Drinking Water Wells within 1,000 Feet of the Proposed Action

WELTS ID	LOCATION	OWNER	WELL DETAIL
35049	The exact location of this well is unknown. The WELTS database shows it occurring along the shore southwest of the USCG Station.	State of Alaska Department of Education and Early Development	Total Depth: 122 feet Depth to Water: 12 feet Coordinates: unknown
34338	The exact location of this well is unknown. The WELTS database shows it occurring along the shore southwest of the USCG Station.	State of Alaska Department of Education and Early Development	Total Depth: 122 feet Depth to Water: 12 feet Coordinates: unknown
42775	The exact location of this well is unknown. The WELTS database shows it occurring along the south side of the Alaska State Museum building.	Alaska State Library	Total Depth: 121.56 feet Depth to Water: 21.92 feet Coordinates: unknown
35008	This well is located south of the Alaska State Museum between the Ramada by Wyndham Juneau and Ace Outdoors.	State Library Archives Museum	Total Depth: 1,810 feet Depth to Water: 49 feet Coordinates: 58.2994995, -134.416595
42773	This well is located in the Alaska State Museum building on the north side.	Alaska State Library	Total Depth: 137.73 feet Depth to Water: 20.1 feet Coordinates: 58.3001785, -134.415817
9254	This well is located along Capital Avenue just north of the intersection with Village Street.	Alaska Electric Light and Power	Total Depth: 20 feet Depth to Water: unknown Coordinates: unknown

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: ADNR 2026b

5.5.3 Environmental Consequences

Effects on water resources would be considered significant if Proposed Action-related activities resulted in: filling in or removal of wetlands or other waters; actions proposed in areas with high probabilities of flooding; an exceedance of a water quality standard or permit condition; a reduction in water availability

or interference with the water supply of existing users; or the creation of or contribution to the overdraft of groundwater basins or the exceedance of safe annual yield of water supply sources.

5.5.3.1 Proposed Action

Wetlands

As documented in the NWI, there are no wetlands located on the shore side of the Proposed Action area (USFWS 2026a). However, the submerged lands of Gastineau Channel, a USACE-regulated water surrounding the project area, are classified as Estuarine and Marine Wetland habitat and Estuarine and Marine Deepwater habitat (Figure D-3) (USFWS 2026a). Implementation of the Proposed Action would require in-water construction within the channel, including pile driving and wharf/pier construction. Therefore, jurisdictional wetlands are presumed to occur within the ROI. Depending on the extent of the affected area, the project may either qualify for authorization under a USACE Nationwide Permit or require an Individual Permit pursuant to Section 404 of the CWA. An RHA Section 10 permit would also be required. USCG conducted initial outreach with USACE on 17 February 2026 to discuss permitting requirements. At the current stage of project planning, the proposed design and construction details remain conceptual, and the specific information required for such a determination is not yet available. USCG will request a pre-application meeting, if necessary, and obtain the appropriate permit from USACE when final design details are available following a geotechnical investigation. This permit would include any required mitigation measures to avoid, minimize, or compensate for adverse environmental effects associated with the discharge. Prior to acquiring the permit, USCG would request a CWA Section 401 Water Quality Certification from ADEC to comply with state water quality standards. In accordance with EO 11990, USCG would take all practicable measures to avoid wetland impacts. This may include consideration of pile-supported structures to the maximum extent practicable, minimization of fill footprints, and reuse of existing infrastructure alignments where feasible. USCG would comply with all CWA Section 404 and RHA Section 10 permit requirements.

USCG would obtain a CGP for stormwater management in advance of implementing the Proposed Action. USCG would conduct construction in accordance with the project-specific CGP and would implement mitigation measures identified in the project SWPPP. During construction, there would be potential for adverse effects on wetlands from stormwater runoff; however, USCG would minimize the effects by employing soil erosion and sediment controls, and construction site waste controls. Stormwater BMPs are discussed in this section under Surface Waters.

Floodplains

The proposed in-water construction would occur within the FEMA VE Zone. Proposed in-water infrastructure would be designed to withstand such conditions. The Proposed Action would not introduce any new factors or obstructions to divert or impede overland floodwater flow or alter the existing hydrologic regime in the downtown waterfront harbor area or Gastineau Channel. There would be no significant effects on floodplain management.

Surface Waters

Ground-disturbing activities associated with the Proposed Action include construction adjacent to and within the downtown waterfront harbor area. Construction has the potential to impact local water quality due to equipment leaks and surface water runoff. USCG would implement standard BMPs in accordance with a project-specific CGP and SWPPP to reduce the potential for surface water effects associated with

these activities. Because there are no impaired water bodies in the project ROI, stormwater discharge monitoring would not be required as part of the project-specific CGP.

Should dredging be required, USCG would use the guidance provided in the Alaska Dredge Material Evaluation Framework (USACE et al. 2024) for characterizing dredged material and post-dredge surface. Additional details regarding potential dredging activities are presented in Section 5.7.3.1.

Groundwater

Of the six wells within 1,000 feet of the ROI boundary, none are located within the construction area, and the Proposed Action does not propose any actions related to groundwater withdrawal. Therefore, the Proposed Action would have no significant effects on groundwater resources.

5.5.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. The No Action Alternative would result in no effect on wetlands, floodplain management, water quality, or groundwater resources, as these are associated with C&D to establish homeporting infrastructure, and there would be no effect from homeporting the *Storis* in Juneau.

5.5.4 Reasonably Foreseeable Effects

As the Proposed Action would have no effect on floodplains or groundwater, the Juneau homeporting project would not contribute to reasonably foreseeable effects on the floodplain or groundwater in the area. The Proposed Action, along with past, present, and reasonably foreseeable actions occurring along the downtown waterfront harbor area could have minor adverse effects on wetlands in the area resulting from surface water runoff. Effects would be long-term if wetlands were filled but short-term if limited solely to construction runoff. An ADEC-issued CGP and development of a project-specific SWPPP would be required for any construction project disturbing more than 1 acre. USACE consultation under CWA Section 404 and RHA Section 10 would establish minimization and/or mitigation measures for future development projects. Adherence to these permits and the BMPs listed in the associated SWPPPs would reduce the potential temporary and minor effects on surface water quality. There would be no significant reasonably foreseeable effects on water resources.

5.6 HAZARDOUS MATERIALS AND HAZARDOUS WASTE

5.6.1 Definition of Resource

5.6.1.1 Hazardous Materials

Hazardous materials are defined in 49 CFR 171.8 as including hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in 49 CFR 173. Petroleum products are considered hazardous materials because they present health hazards to users in the event of releases or extended vapor exposure.

Under the CWA, federal regulations in 40 CFR 112 (*Oil Pollution Prevention*) require facilities with an aboveground oil storage capacity of more than 1,320 gallons to develop and maintain a Spill Prevention, Control, and Countermeasures (SPCC) Plan. The SPCC Plan must describe oil storage containers,

emergency response procedures, and prevention measures such as training and inspection programs. Additionally, certain facilities must also prepare a Facility Response Plan under 40 CFR 112.20 for non-marine transportation-related facilities or 33 CFR 154.1035 for marine transportation-related facilities.

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (42 USC 11001–11050) is designed to help local communities protect public health, safety, and the environment from chemical hazards. EPCRA requirements cover emergency planning and “Community Right-to-Know” reporting on hazardous and toxic chemicals, thereby increasing the public’s knowledge and access to information on chemicals stored at individual facilities, their uses, and releases into the environment (EPA 2026c).

Evaluation of hazardous materials focuses on their storage, transportation, handling, and use. The improper release or storage of hazardous materials and petroleum products can pose a threat to human health and the environment.

5.6.1.2 Hazardous Waste

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901 et seq.), as amended by the Hazardous and Solid Waste Amendments of 1984, defines hazardous waste in 42 USC 6903(5) as a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

- Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed

Hazardous wastes are evaluated in terms of their generation, transportation, treatment, storage, handling, and disposal. The improper release or storage of hazardous wastes can pose a threat to human health and the environment.

5.6.1.3 Toxic Substances

Under the authority of the Toxic Substances Control Act of 1976 (15 USC 2601 et seq.), federal regulations in 40 CFR 700-766 restrict the manufacture, processing, distribution, use, or disposal of specific chemicals that may present an unreasonable risk of personal injury or to the health of the environment. Toxic substances include asbestos-containing material (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs). Asbestos and PCBs were widely used from the 1930s to 1970s; asbestos for its heat- and fire-resistant properties, primarily in building materials and automotive parts, and PCBs as coolants and lubricants in electrical equipment and as plasticizers. Lead was often used as a paint additive prior to 1978. Due to their harmful effects on human health and the environment, LBP was banned in 1978, and PCBs were banned in 1979. ACM was partially banned in 1989, affecting the manufacture, import, processing, and distribution of certain asbestos-containing products and banning new uses of asbestos.

Infrastructure constructed prior to the 1980s has a higher probability of containing toxic substances due to their ubiquitous use in construction materials until the bans were enacted. Disposal of toxic substances is allowed only at permitted facilities.

5.6.1.4 Contaminated Sites

ADEC regulates oil and hazardous substance spill prevention and preparedness under Article 3 of 18 AAC 75 (*Discharge Reporting, Cleanup, and Disposal of Oil and Other Hazardous Substances*). The ADEC

Contaminated Sites Program manages remediation of spill sites and protection of human health and the environment.

Congress established the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 in response to growing concerns regarding risks to human health and the environment from contaminated sites. EPA manages the National Priorities List, which lists the highest priority sites for cleanup.

5.6.2 Affected Environment

The ROI for Hazardous Materials and Hazardous Waste is the footprint of the Proposed Action where C&D would occur and where day-to-day operations would take place once the cutters have been homeported.

5.6.2.1 Hazardous Materials

The Station Juneau SPCC Plan is incorporated into the facility's Integrated Emergency Response and Prevention Plan (IERPP), which contains a facility description, discharge prevention measures, and spill response procedures related to petroleum products stored at the station. Station Juneau maintains a 1,500-gallon, double-walled heating oil aboveground storage tank (AST), a 336-gallon diesel AST for the facility's emergency generator, and other various portable oil storage containers (USCG 2018).

The facility stores various small quantities of chemicals for maintenance and operations. Based on the volume of heating oil storage, Station Juneau meets the established threshold volume to trigger the emergency and hazardous chemical inventory report (Tier II Reporting) under EPCRA. Reporting is provided to the local fire department, Local Emergency Planning Committee, and State Emergency Response Commission. The unit maintains all safety data sheets for chemicals onsite (USCG 2024c).

5.6.2.2 Hazardous Waste

Station Juneau is a Very Small Quantity Generator (VSQG) under RCRA associated with EPA ID AK0000010447 (EPA 2026d). The station manages its hazardous waste disposal collaterally with Sector Southeast Alaska using local area disposal vendors and via a regional disposal contract with Defense Logistics Agency Disposition Service. Hazardous waste generated onsite is minimal. Station Juneau generates the following universal waste items: fluorescent light bulbs, used batteries, and aerosol cans. Other generated waste includes oily rags, oily bilge water, oil filters, and used oil. USCG requires that all waste records be retained indefinitely (USCG 2024c).

5.6.2.3 Toxic Substances

There are no known PCBs at Station Juneau. All known ACM were removed from the station in 2008; there is minimal potential for ACM that was either not identified or not accessible during the abatement to remain onsite. Civil Engineer Unit Juneau is consulted prior to construction or renovation of station buildings to determine if any ACM testing is required. The potential for elevated concentration of radon in indoor air at Station Juneau is low (predicted average less than 2 picocuries per liter). There is potential for LBP to be present at the station due to the 1964 construction date of the building (USCG 2012).

5.6.2.4 Contaminated Sites

Past activities in the vicinity of Station Juneau have resulted in areas of soil and/or groundwater contamination from spills of hazardous substances and petroleum products. A Phase II Environmental Site

Assessment has not been completed to date at Station Juneau. There are no National Priorities List sites in the ROI (EPA 2026e). A total of 39 ADEC contaminated sites were identified within 0.5 miles (2,640 feet) of Station Juneau. Of the sites identified, 7 are active, 19 are cleanup complete, 12 are cleanup complete with institutional controls in place, and 1 is classified by ADEC as “informational”. A summary of the contaminated sites identified is presented in Table F-1.

5.6.3 Environmental Consequences

Effects from or on hazardous materials and hazardous waste would be significant if Proposed Action-related activities would have the potential to violate federal, state, Tribal, or local laws or regulations regarding hazardous materials or solid waste management; interfere with cleanup of a contaminated site; produce an appreciably different quantity or type of hazardous waste; or adversely affect human health and the environment.

5.6.3.1 Proposed Action

Effects from the Proposed Action related to hazardous materials, hazardous waste, toxic substances, and contaminated sites are analyzed for the C&D and long-term facility operations associated with the project.

Hazardous Materials

Effects regarding hazardous materials use and management would not be significant. C&D would involve use of various hazardous materials, such as fuels, engine oil, hydraulic fluids, and solvents, in support of equipment maintenance and other activities. Contractors would use, store, and manage hazardous materials in accordance with the facility IERPP. It is likely that one or more diesel generators would be added to Station Juneau; if the diesel capacity of each generator exceeded 55 gallons, the units would be added to the facility IERPP and incorporated into the existing inspection and maintenance schedule. These preventative measures would minimize any potential adverse effects from increasing the fuel storage onsite.

Hazardous Waste and Toxic Substances

There is potential to encounter ACM and/or LBP during the wharf demolition process. ACM and LBP may have been used during wharf construction to insulate utilities and prevent corrosion of waterfront infrastructure; therefore, USCG would conduct a hazardous materials building survey prior to demolition to identify hazardous waste that would be generated and plan for proper disposal methods and locations. Hazardous wastes and toxic substances would be transported offsite for disposal at a permitted facility.

Wharfing piles and decking may be painted with creosote, which is used to prevent marine borers from destroying unprotected wood. If creosote is present on pilings, BMPs would be followed during removal. USCG may use some or all BMPs described in EPA’s 2016 guidance, *Best Management Practice for Piling Removal and Placement in Washington State*. BMPs for piling removal may include preventative measures such as keeping extraction equipment out of the water, and not twisting, bending, or otherwise deforming pilings during removal. Removed pilings may be stored in a containment area with a layer of plastic sheeting prior to containerizing pilings for disposal. Such BMPs would prevent the introduction of creosote into the environment. Creosote-treated wood is not a hazardous waste under RCRA and can be disposed of in a municipal solid waste landfill under state and federal regulations (Perkins 2009). Disposal of solid wastes generated during construction is discussed in Section 5.10.3.

The increase in hazardous waste and toxic substances generation during the operational phase of the vessel support infrastructure would not be expected to be significant or change Station Juneau's classification as a VSQG under RCRA.

Contaminated Sites

USCG would not expect effects on identified contaminated sites in the vicinity of the Proposed Action. Work at Station Juneau to recapitalize the existing wharf and construct the new pier and covered small boat moorage is limited to in-water work and does not overlap with any of the identified contaminated sites.

5.6.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. Consequently, there would be no demolition of the existing wharf, construction of a new pier or covered moorage, or upgrades to site utilities. USCG would continue to manage Station Juneau's petroleum storage in accordance with the facility IERPP, and the unit would submit a facility EPCRA Tier II report annually. There would be no changes to the facility's hazardous waste generation. For these reasons, effects on hazardous materials and hazardous waste from implementing the No Action Alternative would not be significant.

5.6.4 Reasonably Foreseeable Effects

The Proposed Action, along with other past, present, and reasonably foreseeable actions in the vicinity of Station Juneau would not affect the facility's permitted hazardous materials storage capacity. If multiple projects were carried out simultaneously, there would be an increase in hazardous materials storage and usage, thereby increasing the potential for accidental spills or releases. Contractors would adhere to state and federal regulations pertaining to storing and using such materials. Consequently, there would be no significant effects.

5.7 BIOLOGICAL RESOURCES

5.7.1 Definition of Resource

Biological resources include native or naturalized plants and animals and the habitats in which they exist.

5.7.1.1 Endangered Species Act

Section 7 of the ESA of 1973 (16 USC 1531 et seq.) requires federal agencies to consult with either USFWS or NMFS, depending on species jurisdiction, to ensure their actions do not jeopardize listed species or destroy critical habitat, defined as the geographic areas that are essential to the survival of threatened and endangered (T&E) species. The ESA also prohibits the "take" of listed species, defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." USFWS oversees terrestrial and freshwater species, including some marine birds and amphibians, while NMFS manages marine and anadromous species.

Under Alaska Statute (AS) 16.20.190, ADF&G maintains the State Endangered Species List and oversees the listing and recovery of special-status species (ADF&G 2026a). ADF&G also maintains Alaska's State Wildlife Action Plan (SWAP), which guides conservation priorities and research for species of concern. The Plan identifies "Species of Greatest Conservation Need" (SGCN), including those with small or declining

populations, species of cultural, ecological, or economic importance, sentinel species that indicate environmental change, and stewardship species with a large portion of their range in Alaska. The SWAP identifies 154 SGCN in the Southeast Alaska Bioregion, including fish, freshwater invertebrates, birds, amphibians, and mammals (ADF&G 2015a).

5.7.1.2 Marine Mammal Protection Act

The MMPA of 1972 (16 USC 1361 et seq.) established a federal responsibility to conserve marine mammals and associated essential habitats in U.S. waters by placing a moratorium on “taking” marine mammals in waters or on lands under U.S. jurisdiction, to include harassment. The MMPA defines two levels of harassment: Level A – “Has the potential to injure a marine mammal or marine mammal stock in the wild”; and Level B – “Has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.” Management of the MMPA is vested in NMFS for cetaceans (whales and dolphins) and pinnipeds (seals and sea lions) other than walrus. USFWS is responsible for other marine mammals, including sea otter, walrus, polar bear, dugong, and manatee.

5.7.1.3 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) of 1934 (16 USC 661–667e) protects fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The FWCA directs USFWS to evaluate the effects of proposed water resource development projects on fish and wildlife.

5.7.1.4 Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act of 1980 (16 USC 2901–2911) requires USFWS to identify migratory and non-migratory birds of conservation concern (BCC) that are likely to become endangered without additional conservation efforts. USFWS’s BCC list includes 269 bird species spanning the continental U.S., Puerto Rico, the Virgin Islands, and the Pacific Islands (USFWS 2021).

5.7.1.5 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-712), as amended, requires federal agencies to conserve migratory bird populations. Under the MBTA, it is illegal to pursue, hunt, take, capture, or kill any migratory bird, nest, or egg without a permit issued by USFWS under 50 CFR 21. In Alaska, all native birds are protected by the MBTA except grouse and ptarmigan, which are managed by the State of Alaska.

5.7.1.6 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 USC 668-668c) prohibits the “take” of bald or golden eagles in the U.S. without a permit issued by USFWS under 50 CFR 22.26. “Take” includes actions such as pursuing, shooting, poisoning, wounding, killing, capturing, or disturbing eagles. “Disturb” refers to agitating or bothering eagles in a way that causes or is likely to cause injury, reduced productivity, or nest abandonment by interfering with breeding, feeding, or sheltering, including effects from human activity near previous nest sites—even when eagles are absent—if those changes later disrupt normal behavior upon their return.

5.7.1.7 National Wildlife Refuge System Administration Act

The National Wildlife Refuge System Administration Act of 1966 (16 USC 668dd et seq.) established the National Wildlife Refuge System (NWRS), a network of public lands and waters—including national wildlife refuges, monuments, and conservation areas—that are managed to protect fish, wildlife, and plants. Although located throughout the U.S. and its territories, the largest NWRS units are in Alaska and Pacific Ocean habitats. Each unit has a statutory purpose focused on conserving native species that rely on its lands and waters. USFWS manages the system and verifies that activities are compatible with that purpose. There are currently 16 NWRS units in Alaska totaling an estimated 76.9 million acres (USFWS 2015).

There are no National Wildlife Refuges in Southeast Alaska; therefore, this SEA does not analyze this resource further.

5.7.1.8 Magnuson-Stevens Fishery Conservation and Management Act

The MSA of 1976 (16 USC 1801 et seq.) is the primary law governing the sustainability of marine fisheries in federal waters. Its objectives include preventing overfishing, rebuilding overfished stocks, and ensuring long-term ecological and economic benefits. The MSA mandates the identification and protection of EFH—areas where fish spawn, breed, feed, or grow to maturity, including wetlands, coral reefs, seagrasses, and rivers—in federal waters. In Alaska, EFH is identified in fishery management plans (FMPs) developed by the North Pacific Fishery Management Council (NPFMC) and approved by the Secretary of Commerce. The MSA directs federal agencies to consult with NMFS regarding any action that may adversely affect EFH to identify measures for avoiding or minimizing effects.

Under Alaska’s Anadromous Fish Act (AS 16.05.871–.901), individuals, commercial entities, government agencies, and other organizations must notify and obtain permit approval from ADF&G prior to altering or affecting “the natural flow or bed” of a specified anadromous water body. The ADF&G Anadromous Waters Catalog (AWC), established by AS 16.05.871(a), identifies the freshwater rivers, lakes, and streams in Alaska that are important to the spawning, rearing, or migration of anadromous fish. Activities in or across a specified anadromous water body—including road crossings, gravel removal, mining, water withdrawals, the use of vehicles or equipment in the waterway, stream realignment or diversion, bank stabilization, and the placement, excavation, deposition, or removal of any material—require ADF&G approval. In addition, Alaska’s Fish Passage Act (“Fishway Act”; AS 16.05.841) requires individuals or government agencies to notify and receive authorization from ADF&G before conducting any activities within or across a stream used by fish if those activities could impede the efficient passage of resident or anadromous fish.

5.7.2 Affected Environment

Except for marine wildlife, the ROI for Biological Resources is the area contained within an 850-foot radius of Station Juneau, as defined in Section 5.1.1. Because underwater sound from the Proposed Action has effects at greater distances than other stressors, the ROI for marine wildlife is based on established behavioral sound thresholds (Figure 2 in Appendix B EFH Assessment and Figure 2 in Appendix B):

- The ROI for fish (including EFH) is the maximum extent at which underwater sound may induce behavioral disturbance, including the downtown waterfront harbor area and a portion of Gastineau Channel—a roughly 16-mile-long channel separating Douglas Island to the west and mainland Juneau to the east—up to approximately 19,700 feet. Potentially affected fish habitat

includes the marine and estuarine waters within the in-water construction footprint and surrounding areas that may be disturbed by the Proposed Action.

- The ROI for marine mammals encompasses 44,600 feet, to include the marine waters of the downtown waterfront harbor area extending roughly from the Juneau-Douglas Bridge down to the southwestern side of Gastineau Channel near the Stephens Passage entrance.

5.7.2.1 Vegetation

Juneau is within a coastal temperate rainforest ecosystem consisting of lush, high-precipitation flora (Audubon 2016). Key species include Sitka spruce (*Picea sitchensis*), western hemlock (*Tsuga heterophylla*), Alaska yellow cedar (*Callitropsis nootkatensis*), and mountain hemlock (*Tsuga mertensiana*). Understory plants may include Devil's club (*Oplopanax horridus*), salmonberry (*Rubus spectabilis*), blueberry (*Vaccinium alaskaense*), and mosses and ferns (Audubon 2016; Farr and Harris 1974). Wetland areas typically contain sedges, cotton grass (*Eriophorum* spp.), and wild iris (*Iris setosa*). Lower elevations are heavily influenced by muskegs (bogs) and higher elevations by alpine meadows and sub-alpine coniferous forests (Audubon 2016).

Invasive species in the downtown Juneau area may include European mountain ash (*Sorbus aucuparia* L.), Japanese knotweed (*Reynoutria japonica* [Houtt]), creeping buttercup (*Ranunculus repens* L.), and garlic mustard (*Alliaria petiolata* [Bieb.]) (KTOO 2025b).

No terrestrial vegetation (native or invasive) occurs within the ROI, as it is in a completely developed area of downtown Juneau.

Submerged aquatic vegetation (SAV) consists of rooted aquatic plants that grow entirely below the water surface in freshwater, marine, and estuarine environments. In estuaries, SAV provides a structurally complex habitat that offers refuge from predators and foraging opportunities through associated invertebrate communities. SAV beds can form dense underwater canopies and function as highly productive habitats that support large populations of fish and invertebrates (NOAA Fisheries 2020a).

The Alaska ShoreZone habitat mapping and classification system classifies the 1,056-foot stretch of shoreline along the wharf as Protected/Anthropogenic Permeable. The associated Coastal Class and Shore Type are both Man-Made Permeable. NOAA's Environmental Sensitivity Index (ESI) shoreline classification identifies the area as Sheltered Rip-Rap with No Aquatic Vegetation Listed (NOAA Fisheries 2022). In the proposed wharf and pier area, the seafloor drops steeply, reaching approximately 50 feet deep about 100 feet from shore and continuing to roughly 100 feet deep. These deeper waters do not support substantial SAV within the ROI.

Eelgrass (*Zostera marina*) is an ecologically important nearshore habitat that is susceptible to degradation and loss from coastal development and natural environmental changes (Harris et al. 2008). Shoreline surveys along the Juneau road system did not detect eelgrass beds near the ROI; the nearest beds occurred about 8 miles northwest (Harris et al. 2008). Within the ROI, a shallow intertidal area extends from the outlet of Gold Creek to approximately 333 feet west of the existing wharf. ShoreZone classifies this 2,250-foot area as Protected/Partially Mobile/Sediment or Rock and Sediment, with a Coastal Class of Sand Flat. The ESI identifies the area as Sheltered Tidal Flats with Moderate Persistence on the Oil Residency Index (months to years) (NOAA Fisheries 2022). Although no eelgrass was observed, the area supports typical intertidal vegetation, including patchy green algae (*Chlorophyta*) and continuous rockweed (*Fucus distichus*) (NOAA Fisheries 2022). Imagery indicates no aquatic vegetation (e.g., kelp beds), and USCG expects minimal aquatic vegetation along the developed wharf or proposed pier area.

5.7.2.2 Fish and Wildlife

ADF&G conducted a dive survey in December 2009 to characterize benthic habitat in the vicinity of the Douglas, Harris, and Aurora Harbor dredged material disposal site southeast of the project area. The sea floor consisted primarily of silt and was largely featureless, with no attached vegetation or rock formations and minimal biological activity. The divers noted small numbers of tanner crabs (*Chionoecetes bairdi*), striped shrimp (*Pandalus spp.*), juvenile flatfish (suborder *Pleuronectoidei*), snails (class *Gastropoda*), and hermit crabs (superfamily *Paguroidea*) (USACE 2019).

Aquatic and semi-aquatic mammals native to Southeast Alaska include river otter (*Lontra canadensis*), Steller sea lion (*Eumetopias jubatus*), and killer whale (*Orcinus orca*) (Audubon 2016; Carstensen 2022). All five species of Pacific salmon (Chinook [*Oncorhynchus tshawytscha*], coho [*O. kisutch*], sockeye [*O. nerka*], pink [*O. gorbuscha*], and chum [*O. keta*]), Pacific halibut (*Hippoglossus stenolepis*), Arctic char (*Salvelinus alpinus*), greenling (family *Hexagrammidae*), poacher (family *Agonidae*), herring (*Clupea pallasii*), sand lance (family *Ammodytidae*), snailfish (family *Liparidae*), stickleback (family *Gasterosteidae*), several sculpin species (family *Cottoidea*), and a variety of rockfish (*Sebastes spp.*) are found in the waters surrounding Juneau as well. Lingcod (*Ophiodon elongatus*), Dolly Varden (*Salvelinus malma*), and coastal cutthroat trout (*Oncorhynchus clarkii clarkii*) are commonly found near stream mouths in Southeast Alaska (ADF&G 2025). Shellfish species that may occur in Gastineau Channel include butter clams (*Saxidomus gigantea*), cockles (*Clinocardium spp.*), littleneck clams (*Leukoma staminea*), mussels (family *Mytilidae*), and Dungeness crabs (*Metacarcinus magister*) (Agency for Toxic Substances and Disease Registry 2024). While not all of the aquatic species present in the ROI and surrounding waters are federally managed, many provide ecological value as prey for other organisms in the channel and for carnivorous terrestrial species.

Mammals native to Southeast Alaska include black bear (*Ursus americanus*), brown bear (*Ursus arctos*), Sitka black-tailed deer (*Odocoileus hemionus sitkensis*), moose (*Alces alces*), mountain goat (*Oreamnos americanus*), hoary marmot (*Marmota caligata*), red squirrel (*Tamiasciurus hudsonicus*), snowshoe hare (*Lepus americanus*), deer mouse (*Peromyscus maniculatus*), vole (*Microtus spp.*), porcupine (*Erethizon dorsatum*), little brown bat (*Myotis lucifugus*), common shrew (*Sorex cinereus*), short-tailed weasel (*Mustela erminea*), American marten (*Martes americana*), American mink (*Neogale vison*), North American wolverine (*Gulo gulo luscus*), North American beaver (*Castor canadensis*), Alexander Archipelago wolf (*Canis lupus ligoni*), and Canada lynx (*Lynx canadensis*) (Audubon 2016; Carstensen 2022). Terrestrial species that may use areas within and surrounding the ROI are generally limited to birds and small mammals due to the urban development of the area prior to this project.

As of January 2026, the ESA lists 41 animal species and/or Distinct Population Segments (DPSs) as T&E and one species as proposed threatened in Alaska (ADF&G n.d.-a; NOAA Fisheries 2024a).

Table 5.7-1 identifies the ESA-listed species that may occur within or near the ROI, which includes portions of Gastineau Channel and near Stephens Passage, and whether the Proposed Action would affect these species. No designated critical habitat occurs in or near the ROI.

Table 5.7-1 ESA-Listed Species Potentially Occurring in or Near the Region of Influence

COMMON NAME	SCIENTIFIC NAME	MANAGEMENT UNIT/STOCK	STATUS	DETERMINATION OF EFFECT
Short-tailed albatross	<i>Phoebastria</i> [= <i>Diomedea</i>] <i>albatrus</i>	N/A	Endangered ¹	No Effect
Steller sea lion	<i>Eumetopias jubatus</i>	Western Stock (wDPS)	Endangered ¹	Likely to Adversely Affect
North Pacific right whale	<i>Eubalaena japonica</i>	Eastern North Pacific Stock	Endangered ¹	No Effect
Fin whale	<i>Balaenoptera physalus</i>	Northeast Pacific Stock	Endangered ¹	No Effect
Humpback whale	<i>Megaptera novaeangliae</i>	Western North Pacific DPS	Endangered ¹	No Effect
Humpback whale	<i>Megaptera novaeangliae</i>	Mexico DPS	Threatened ¹	Likely to Adversely Affect
Sperm whale	<i>Physeter macrocephalus</i>	Alaska North Pacific Stock	Endangered ¹	No Effect
Killer whale	<i>Orcinus orca</i>	Eastern North Pacific Southern Resident Stock	Endangered ¹	No Effect

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Source: NMFS 2024; Carretta et al. 2024; USFWS 2023; NOAA Fisheries 2025a-2025c; ADF&G 2015a; Young et al. 2024

¹The ROI for marine mammals does not overlap defined critical habitat of any species.

The endangered short-tailed albatross (*Phoebastria* (= *Diomedea*) *albatrus*) is the only terrestrial ESA-listed species with the potential to occur in the action area (USFWS 2026b). Short-tailed albatrosses are occasionally observed off the coast of Southeast Alaska, but normally greater than 15 miles off the outer coast, and they do not breed in Alaska. Because they primarily forage along the continental shelf margin and concentrations are low in Southeast Alaska, it is unlikely that they will occur in or near the ROI (USCG 2021; USFWS n.d.). Therefore, the Proposed Action would have no effect on this species.

There are two DPSs of Steller sea lions (*Eumetopias jubatus*). The Eastern Stock (eDPS) occurs east of Cape Suckling in the Gulf of Alaska (144 degrees [°] west longitude), including Southeast Alaska, and may occasionally occur in or near the ROI. The eDPS was delisted on 4 November 2013. The endangered Western Stock (wDPS) occurs primarily west of Cape Suckling (NOAA Fisheries 2025a; Young et al. 2024). Although the mixing zone near the stock boundary is far from the ROI, wDPS sea lions could occasionally occur in or near the ROI and may be affected by the Proposed Action. Because the two DPSs cannot be distinguished during monitoring, they are combined for take estimates. Steller sea lions in Southeast Alaska breed at rookeries on offshore islands along the outer coast and typically move to more protected haulouts during winter (USCG 2021). Major rookeries and haulouts (i.e., more than 200 sea lions) are designated and protected as critical habitat for both DPSs. The nearest designated critical habitat to the ROI is a haulout on Benjamin Island, approximately 25 miles northwest of the ROI over land or 50 miles by sea around Douglas Island.

Ship-based cetacean surveys conducted throughout Southeast Alaska inland waterways from 1991 to 2007 documented humpback whales (*Megaptera novaeangliae*) and killer whales (*Orcinus orca*) across much of the region, while fin whales (*Balaenoptera physalus*) and sperm whales (*Physeter macrocephalus*) showed more limited and localized distributions (ADF&G n.d.-b; Dahlheim et al. 2009). Occasional winter

and early spring sightings of humpback whales and resident and transient killer whales continue to be reported; in contrast, North Pacific right whales (*Eubalaena japonica*), fin whales, and sperm whales are typically associated with outer coastal waters and are not regularly observed within the Inside Passage waters of Southeast Alaska or the ROI (Dahlheim et al. 2009; NOAA Fisheries 2025b; Young et al. 2024). Consistent with this pattern, fin whales were recorded occasionally in southern Southeast Alaska and only near the open ocean (Dahlheim et al. 2009); although sperm whales were not observed during those surveys, they have been documented more recently in Chatham Strait and Lynn Canal (ADF&G n.d.-b; NOAA Fisheries 2019). Due to their limited occurrence in or near the ROI, it is anticipated that the Proposed Action would have no effect on North Pacific right whales, fin whales, or sperm whales.

Humpback whales in Alaska occur in three DPSs associated with breeding areas, mainly during the summer feeding season: the Western North Pacific DPS (endangered), the Mexico DPS (threatened), and the Hawai'i DPS (not listed). In Southeast Alaska, 97.6% of humpback whales belong to the Hawai'i DPS and 2.4% belong to the Mexico DPS; none are attributed to the Western North Pacific DPS (Wade 2021). Dahlheim et al. (2009) regularly observed humpback whales throughout Lynn Canal and Stephens Passage, with seasonal patterns related to prey availability. Anecdotally, humpbacks occasionally occur in the upper Gastineau Channel, while greater numbers are more commonly observed in the Stephens Passage/Taku Inlet area, with the highest numbers observed in summer and fall in groups typically ranging from one to four individuals (Dahlheim et al. 2009). No endangered Western North Pacific DPS humpbacks have been recorded or are expected in or near the ROI (Wade 2021; USCG 2021) and the Proposed Action would have no effect on this DPS. In contrast, consistent with their distribution, threatened Mexico DPS humpbacks may be affected by the Proposed Action.

Killer whales are grouped into three ecotypes: resident (salmon specialists), transient (marine mammal specialists), and offshore (shark/fish specialists) (Carretta et al. 2024; NOAA Fisheries 2025d). Resident and transient ecotypes have been regularly observed throughout Lynn Canal and Stephens Passage, including near the mouth of Gastineau Channel/Taku Inlet, with the most seen in the fall (Dahlheim et al. 2009). Anecdotal observations have been recorded near the downtown waterfront harbor area (Orcas in the Gastineau Channel [Orcas] 2021). Offshore killer whales are observed infrequently and were not recorded in Stephens Passage during surveys (Dahlheim et al. 2009). The occurrence of resident killer whales in Southeast Alaska is likely associated with the timing of seasonal Pacific salmon runs (Dahlheim et al. 2009). Likewise, the seasonal presence of transient killer whales may be influenced by seasonal availability of prey, such as pinniped pups occurring near rookeries or haulouts (Small et al. 2003 as cited in Dahlheim et al. 2009). Eight killer whale stocks occur within the Pacific U.S. Exclusive Economic Zone (Young et al. 2024). The endangered Eastern North Pacific Southern Resident Stock has been documented at least once in Southeast Alaska (Chatham Strait) but is not expected to occur in or near the ROI (Carretta et al. 2024); therefore, it is anticipated that the Proposed Action would have no effect on this stock.

Table 5.7-2 identifies non-ESA-listed marine mammal species that may be present in or near the marine mammal ROI.

Table 5.7-2 Non-ESA-Listed Marine Mammal Species Potentially Occurring in or Near the Marine Mammal Region of Influence

COMMON NAME	SCIENTIFIC NAME	MANAGEMENT UNIT/STOCK
Northern sea otter	<i>Enhydra lutris</i>	Southeast Alaska DPS
Northern fur seal	<i>Callorhinus ursinus</i>	Eastern Pacific Stock
Steller sea lion	<i>Eumetopias jubatus</i>	Eastern Stock (eDPS)
California sea lion	<i>Zalophus californianus</i>	United States Stock
Northern elephant seal	<i>Mirounga angustirostris</i>	California Breeding Stock
Harbor seal	<i>Phoca vitulina</i>	Lynn Canal/Stephens Passage Stock
Minke whale	<i>Balaenoptera acutorostrata</i>	Alaska Stock
Humpback whale	<i>Megaptera novaeangliae</i>	Hawai'i DPS
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	North Pacific Stock
Killer whale	<i>Orcinus orca</i>	Refer to the notes
Harbor porpoise	<i>Phocoena phocoena</i>	Northern Southeast Alaska Stock
Dall's porpoise	<i>Phocoenoides dalli</i>	Alaska Stock

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Killer whale stocks: Eastern North Pacific Alaska Resident Stock; Eastern North Pacific Gulf of Alaska/Aleutian/Bering Sea Transient Stock; Eastern North Pacific Northern Resident Stock; West Coast Transient Stock

Source: NMFS 2018, 2024; Carretta et al. 2024; NOAA Fisheries 2025a-2025k; Young et al. 2024

Among non-ESA-listed species, Steller sea lions (eDPS), harbor seals (*Phoca vitulina*), humpback whales (Hawai'i DPS), killer whales (resident and transient, multiple stocks), harbor porpoises (*Phocoena phocoena*), and Dall's porpoises (*Phocoenoides dalli*) are most likely to occur in the ROI based on habitat preferences and species ranges (NMFS 2024; Jenniges, J., personal communication, 6 January 2026; Dahlheim et al. 2009; NOAA Fisheries 2025a-k; USFWS 2023; Young et al. 2024). Other species typically occur in deeper or more offshore waters and rarely occur within the ROI, including northern sea otters (*Enhydra lutris*), northern fur seals (*Callorhinus ursinus*), California sea lions (*Zalophus californianus*), minke whales (*Balaenoptera acutorostrata*), Pacific white-sided dolphins (*Lagenorhynchus obliquidens*), and northern elephant seals (*Mirounga angustirostris*) (NMFS 2024; Eisaguirre et al. 2021; Schuette et al. 2023; Dahlheim et al. 2009).

Although occasionally sighted along the Juneau road system (e.g., Berners Bay), northern sea otters are unlikely to occur in large numbers in or near the ROI (Jenniges, J., personal communication, 6 January 2026; Schuette et al. 2023). Aerial surveys and distribution maps do not indicate that northern sea otters are present in Gastineau Channel and upper Stephens Passage (Schuette et al. 2023; Tinker et al. 2019). Though the population is growing (Schuette et al. 2023; USFWS 2023), substantial colonization of Gastineau Channel is not expected in the near term (Eisaguirre et al. 2021).

Northern fur seals are highly pelagic (inhabiting the open sea), breeding in the U.S. only on the Pribilof Islands, Bogoslof Island, or San Miguel Island (NOAA Fisheries 2025e; Young et al. 2024). Non-breeding individuals rarely come ashore and are unlikely to occur in upper Gastineau Channel or Stephens Passage/Taku Inlet. NMFS previously recommended including five individuals per month in Level B take estimates for nearby projects (NMFS 2024); therefore, northern fur seals are included in this analysis.

Non-ESA-listed eDPS Steller sea lions may occasionally occur in or near the ROI (NOAA Fisheries 2025a; Young et al. 2024). Steller sea lions use Fritz Cove, 8.5 miles northwest of Station Juneau by air, as a winter

aggregation area. Monitoring at nearby projects (Auke Bay Ferry Terminal and Statter Harbor, 2019-2021) recorded groups of up to 50 Steller sea lions per day, primarily in winter during transit between the Benjamin Island haulout and Auke Bay (17 miles) (NMFS 2018). It is unlikely that Steller sea lions would transit 50 miles from Benjamin Island to the downtown waterfront harbor area, as they are documented avoiding human disturbance (Kucey 2005).

California sea lions breed in Southern California and Mexico. Male sea lions migrate north during winter and occasionally occur in Southeast Alaska (Carretta et al. 2024; NOAA Fisheries 2025f). Occurrence near the ROI is rare, with one sighting in the downtown waterfront harbor area in 2017. None were observed during nearby Auke Bay construction projects (NMFS 2024).

Northern elephant seals breed on offshore islands in California and Baja California from December through March (NOAA Fisheries 2025g; Stewart et al. 1994). Adult males forage along the Gulf of Alaska and the western Aleutian continental shelf, while females forage pelagically. Northern elephant seals rarely occur near the ROI.

Harbor seals inhabit coastal waters, alternating between marine areas and haulouts for thermoregulation, molting, social interaction, pupping, and nursing. They are opportunistic carnivores, primarily feeding on fish as well as squid, shellfish, and crustaceans (NOAA Fisheries 2025h). Harbor seals are the most abundant marine mammal in the downtown waterfront harbor area (NMFS 2019). Of the 12 stocks occurring in Alaska, the Lynn Canal/Stephens Passage stock is expected in or near the ROI (Young et al. 2024).

Minke whales are migratory baleen whales that feed on fish and occur sporadically in Southeast Alaska inland waters, including Glacier Bay, Icy Strait, Clarence Strait, and Stephens Passage, typically as single individuals (Dahlheim et al. 2009; NOAA Fisheries 2025i; Young et al. 2024). They rarely occur near the ROI; Dahlheim et al. (2009) reported only two sightings in Stephens Passage and none in Lynn Canal.

Approximately 98% of humpback whales in Southeast Alaska belong to the non-ESA-listed Hawai'i DPS and 2% belong to the threatened Mexico DPS (Table 5.7-2). These DPSs cannot be differentiated during monitoring and are combined for take estimates. Humpback whales regularly occur in Stephens Passage near the Gastineau Channel outlet and are expected in or near the ROI. They also use nearby Auke Bay intermittently and Fritz Cove as a winter aggregation area similarly to Steller sea lions (NMFS 2024). Counts of 1 to 19 whales per month in groups of 1 to 4 individuals were recorded near Lynn Canal and adjacent waters (Moran et al. 2018; Straley et al. 2018; Dahlheim et al. 2009).

Pacific white-sided dolphins are social cetaceans, typically found in groups of 10 to 100, sometimes larger. They are pelagic and unlikely to occur close to shore or near the ROI. Rare sightings have occurred in lower Stephens Passage. None have been recorded in Lynn Canal or near Gastineau Channel/Taku Inlet (Dahlheim et al. 2009; NOAA Fisheries 2025j).

Whale watching data indicate most frequently observed killer whales are transient, followed by resident, and rarely offshore (Luck 2017). Resident and transient killer whales regularly occur in Stephens Passage and occasionally in Gastineau Channel, with some sightings near the downtown waterfront harbor area (Dahlheim et al. 2009; Orcas 2021); therefore, killer whales are expected to occur in the ROI. Killer whale stocks in Southeast Alaska include Eastern North Pacific Alaska Resident, Eastern North Pacific Gulf of Alaska/Aleutian/Bering Sea Transient, Eastern North Pacific Northern Resident, and West Coast Transient (NMFS 2018, 2024). Killer whale stocks cannot be differentiated during monitoring and are combined for take estimates.

Harbor porpoises are small, coastal cetaceans that typically occur in groups of 2 to 3 and inhabit harbors, fjords, estuaries, and bays (NOAA Fisheries 2025k). Dahlheim et al. (2009) regularly observed them in Lynn Canal and Stephens Passage near Gastineau Channel/Taku Inlet, with no apparent seasonal pattern. They are likely to occur occasionally in the ROI. They are inconspicuous, making detection by Protected Species Observers challenging (NMFS 2024).

Dall’s porpoises are small, fast cetaceans found in offshore, inshore, and nearshore waters between 30° to 62° North latitude. They frequently occur in Lynn Canal, Stephens Passage, upper Chatham Strait, Frederick Sound, and Clarence Strait. In Stephen’s Passage, they were observed near the mouth of Gastineau Channel/Taku Inlet, with the highest numbers in spring and the lowest in fall (Dahlheim et al. 2009; Jefferson et al. 2019). However, they were not documented within Gastineau Channel itself and are rarely observed near Auke Bay, likely reflecting a preference for deeper or more offshore waters. Accordingly, while Dall’s porpoises are not expected to occur regularly within the ROI, individuals may still be encountered intermittently, particularly as they transit through nearby deeper channels.

The MSA requires federal agencies to consult with NMFS regarding activities that could harm designated EFH. The NPFMC is responsible for designating EFH for all federally managed species in Alaska’s coastal and marine waters by publishing FMPs. The NPFMC has designated EFH for five Pacific salmon species regulated under the *FMP for the Salmon Fisheries in the EEZ Off Alaska* (NPFMC 2024a). All five species of Pacific salmon are found in Gastineau Channel and surrounding waters and streams (Table 5.7-3), and designated EFH areas for these species are present in the ROI for fish. The ADF&G’s AWC identifies several anadromous streams adjacent to the project ROI, including Kowee Creek, Gold Creek, Lawson Creek, Snowslide Creek, Sheep Creek, Bullion Creek, and Ready Bullion Creek (ADF&G n.d.-c). Each of these supports relatively minor returns of coho, pink, or chum salmon. Gold Creek, closest to Station Juneau, holds small numbers of returning pink and chum salmon from July through September. However, most fish cannot successfully spawn because they cannot pass above the concrete flume that runs through town (Bethers et al. 2012).

Table 5.7-3 Salmon Species and Life Stages Occurring in the Fish Region of Influence

COMMON NAME	SCIENTIFIC NAME	LIFE STAGES
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature and Maturing Adults
Coho salmon	<i>Oncorhynchus kisutch</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature and Maturing Adults
Sockeye salmon	<i>Oncorhynchus nerka</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature and Maturing Adults
Pink salmon	<i>Oncorhynchus gorbuscha</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature and Maturing Adults
Chum salmon	<i>Oncorhynchus keta</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature and Maturing Adults

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Source: NPFMC 2024a

The *FMP for the Groundfish Fisheries of the Gulf of Alaska* (NPFMC 2024b) defines EFH for groundfish species that may occur within the U.S. Economic Exclusion Zone off Alaska. Designated EFH for 11 species of groundfish is present in the ROI for fish (Table 5.7-4).

Table 5.7-4 Groundfish Species and Life Stages in the Fish Region of Influence

COMMON NAME	SCIENTIFIC NAME	LIFE STAGES
Arrowtooth flounder	<i>Atheresthes stomias</i>	Larvae; Settled Early Juvenile; Subadult; Adult
English sole	<i>Parophrys vetulus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Flathead sole	<i>Hippoglossoides elassodon</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Northern rock sole	<i>Lepidopsetta polyxystra</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Pacific cod	<i>Gadus macrocephalus</i>	Egg; Larvae; Pelagic Early Juvenile; Settled Early Juvenile; Subadult; Adult
Rex sole	<i>Glyptocephalus zachirus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Sablefish	<i>Anoplopoma fimbria</i>	Settled Early Juvenile
Southern rock sole	<i>Lepidopsetta bilineata</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Starry flounder	<i>Platichthys stellatus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Walleye pollock	<i>Theragra calcogramma</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Yellowfin sole	<i>Limanda aspera</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Source: NPFMC 2024b

In addition to designating EFH, the NPFMC is responsible for identifying Habitat Areas of Particular Concern (HAPCs) for federally managed species. HAPCs are designated to provide enhanced focus for conservation and management by identifying EFH that are of high ecological importance to the long-term sustainability of managed species, are rare or unique, or are particularly susceptible to degradation or development. No HAPCs occur in or near the ROI.

Juneau supports an abundant bird population due to the variety of habitats within a relatively small area and plentiful foraging and breeding opportunities. Commonly observed bird species in the Juneau area include harlequin ducks (*Histrionicus histrionicus*), common ravens (*Corvus corax*), gulls (*Larus* spp.), chickadees (*Parus* spp.), great blue herons (*Ardea herodias*), belted kingfishers (*Megasceryle alcyon*), and bald eagles (*Haliaeetus leucocephalus*) (ADF&G 2015b). A variety of sea ducks overwinter in Gastineau Channel, including Barrow's goldeneyes (*Bucephala islandica*), common goldeneyes (*B. clangula*), buffleheads (*Bucephala albeola*), mallards (*Anas platyrhynchos*), white-winged scoters (*Melanitta deglandi*), and surf scoters (*M. perspicillata*) (ADF&G 2015b).

Juneau Audubon Society maintains a comprehensive checklist of over 280 bird species in the Juneau area, including year-round residents as well as migratory birds, plus 26 unsubstantiated species (those reported but lacking physical documentation) (Audubon 2022). No migratory bird colonies or notable concentrations of migratory birds occur within the ROI (Audubon 2022; USFWS 2026b). Audubon Alaska has identified 208 Important Bird Areas (IBAs) in the state, 156 of which are considered globally significant

(Audubon 2022). Parts of the Stephens Passage Marine IBA and the Surf Scoter Coastal Fall IBA occur southeast of the ROI within Gastineau Channel (Audubon 2016); however, no IBAs overlap the ROI.

USFWS has identified 34 BCC species in the Northern Pacific Rainforest Bird Conservation Region (BCR), which extends from the western Gulf of Alaska south through British Columbia, Washington, Oregon, to northern California; these species represent the highest conservation priorities in the U.S. and include those that may occur within the BCR during passage or overwintering. Table 5.7-5 lists these species along with their breeding status (USFWS 2021).

With an estimated population of 30,000 individuals, bald eagles are more abundant in Alaska than anywhere else in the U.S. The nesting period for bald eagles in Alaska is 1 March through 31 August. The highest nesting densities occur in the old-growth timber of Southeast Alaska (ADF&G 2026b). Bald eagle nests are unlikely to be found in the ROI, as eagles rarely nest in artificial structures, preferring trees, snags, cliffs, and rock promontories (USFWS 2026c). Golden eagles are less prevalent in Southeast Alaska (ADF&G 2026c). There are no known golden eagle nests in the greater Juneau area and no nesting habitat in the ROI.

Table 5.7-5 Birds of Conservation Concern in the Northern Pacific Rainforest Bird Conservation Region

COMMON NAME	SCIENTIFIC NAME	STATUS
Western grebe	<i>Aechmophorus occidentalis</i>	Breeding
Clark's grebe	<i>Aechmophorus clarkii</i>	Breeding
Black swift	<i>Cypseloides niger</i>	Breeding
Vaux's swift	<i>Chaetura vauxi</i>	Breeding
Rufous hummingbird	<i>Selasphorus rufus</i>	Breeding
Allen's hummingbird	<i>Selasphorus sasin</i>	Breeding
Black oystercatcher	<i>Haematopus bachmani</i>	Breeding
Marbled godwit	<i>Limosa fedoa</i>	Non-breeding
Red knot (Pacific)	<i>Calidris canutus</i>	Non-breeding
Rock sandpiper (Pribilof)	<i>Calidris ptilocnemis</i>	Non-breeding
Short-billed dowitcher	<i>Limnodromus griseus</i>	Breeding
Lesser yellowlegs	<i>Tringa flavipes</i>	Non-breeding
Willet	<i>Tringa semipalmata</i>	Non-breeding
Marbled murrelet (Alaska)	<i>Brachyramphus marmoratus</i>	Breeding
Kittlitz's murrelet	<i>Brachyramphus brevirostris</i>	Breeding
Ancient murrelet	<i>Synthliboramphus antiquus</i>	Breeding
Cassin's auklet	<i>Ptychoramphus aleuticus</i>	Breeding
Tufted puffin	<i>Fratercula cirrhata</i>	Breeding
Western gull	<i>Larus occidentalis</i>	Breeding
California gull	<i>Larus californicus</i>	Breeding
Aleutian tern	<i>Onychoprion aleuticus</i>	Breeding
Brandt's cormorant	<i>Urile penicillatus</i>	Breeding
Red-faced cormorant	<i>Urile urile</i>	Breeding
Flammulated owl	<i>Psilosops flammeolus</i>	Breeding

Table 5.7-5 Birds of Conservation Concern in the Northern Pacific Rainforest Bird Conservation Region

COMMON NAME	SCIENTIFIC NAME	STATUS
Western screech-owl (Northern Pacific)	<i>Megascops kennicottii</i>	Breeding
Olive-sided flycatcher	<i>Contopus cooperi</i>	Breeding
Chestnut-backed chickadee	<i>Poecile rufescens</i>	Breeding
Oak titmouse	<i>Baeolophus inornatus</i>	Breeding
White-breasted nuthatch (slender-billed)	<i>Sitta carolinensis</i>	Breeding
Wrentit	<i>Chamaea fasciata</i>	Breeding
Varied thrush (Pacific)	<i>Ixoreus naevius</i>	Breeding
Evening grosbeak	<i>Hesperiphona vespertina</i>	Breeding
Cassin's finch	<i>Haemorhous cassinii</i>	Breeding
Vesper sparrow (Oregon)	<i>Pooecetes gramineus</i>	Breeding

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: USFWS 2021

5.7.3 Environmental Consequences

Effects on biological resources would be significant if the Proposed Action were to cause the permanent loss or substantial degradation of protected or sensitive habitats, result in the direct mortality of a substantial number of sensitive species, or violate federal, state, or local laws protecting biological resources. Temporary or minor impacts in highly modified areas would typically not be significant.

5.7.3.1 Proposed Action

Vegetation

Existing shoreline modifications and infrastructure, insufficient habitat, and rapidly increasing water depth limit the potential for SAV within the project footprint; therefore, substantial SAV is unlikely to be present. Dredging in the ROI may be necessary to provide sufficient draft depth for USCG vessels and visiting ships. Because SAV is unlikely to occur in significant quantities, the impacts on this aquatic resource would be minimal.

Pile installation and removal, dredging, and in-water placement of rock and fill may temporarily increase turbidity and sedimentation. The shallow intertidal area at the outflow of Gold Creek lies approximately 333 feet from the project site. Currents may transport small quantities of sediment from in-water C&D; however, sediment-related effects on aquatic vegetation within the ROI would not be significant.

Fish and Wildlife

USCG determined that the Proposed Action may adversely affect ESA-listed marine mammals and initiated Section 7 consultation with NMFS and USFWS for T&E species. USCG is also coordinating with NMFS on potential impacts to non-listed marine mammals, including preparation of an IHA under the MMPA, and has initiated consultation with NMFS regarding EFH under the MSA. A supporting Biological Assessment (BA) and EFH Assessment are provided in Appendix B.

USCG anticipates that in-water work with the potential to affect protected species would require either two full or three partial construction seasons to complete. Construction seasons could begin as early as mid-March and extend through mid-November, depending on weather conditions and applicable in-water work windows. Construction is not expected to occur during winter conditions in Juneau. Currently, USCG assumes approximately 12 months of in-water work would occur over an 18- to 24-month period starting in 2027, with completion anticipated in late 2028 or spring 2029.

Wharf demolition is expected to take approximately 3 months and involve vibratory extraction, dead pulling (i.e., directly pulling piles out of the seabed with a crane), and/or in-water cutting of up to 500 timber piles. The estimated timeline for construction of the wharf, trestle, and pier is approximately 10 months and may include impact driving, vibratory driving/extraction, and down-the-hole (DTH) drilling. The new wharf could be a concrete or steel pile-supported structure or a bulkhead-style dock constructed using an Open Cell Sheet Pile (OCSP) method backfilled with compactable material.

Tugs, derrick barges, materials barges, and work skiffs would be used throughout construction, with up to seven vessels operating during the project. Heavy equipment such as excavators, loaders, and cranes may be operated from upland locations to access the nearshore components of the wharf decking, bracing, and piles. Dredging may occur along the wharf and covered moorage to achieve the required depths needed to accommodate the planned vessel(s). In-water placement of rock and fill may be needed to protect exposed shorelines from wave and current action.

Wharf demolition, pile driving and extraction, DTH drilling, dredging, and in-water placement of rock would temporarily disturb bottom sediments and may adversely affect EFH for Pacific salmon and groundfish species and life stages through localized increases in turbidity, siltation, sedimentation, underwater sound, contaminant release or exposure, invasive species risks, and direct disturbance of benthic habitat and prey resources. Elevated suspended sediments could reduce light penetration and primary productivity by shading photosynthetic organisms and smothering benthic algae or other vegetation. Fine sediments may settle on the sea floor and fill interstitial spaces used by benthic macroinvertebrates. If sediments contain contaminants, pile removal could temporarily resuspend these materials into the water column and surface sediments. Fish may be affected through gill irritating or clogging, smothered eggs, trapped hatchlings, impaired feeding, increased metabolic costs, or reduced foraging, breeding, or migratory behaviors. Dredging and disposal would also temporarily affect benthic communities through increased turbidity, light attenuation, contaminant mobilization, and habitat loss or transformation. Minor long-term effects on marine habitat could occur from localized habitat alteration beneath permanent piles, changes in water-surface conditions in the pier footprint, and shading of underwater habitats by the piles, trestle, and pier. Marine vessel infrastructure in Southeast Alaska harbors is susceptible to invasive fouling organisms, including tunicates and related species, and relocation of older dock materials can transport these organisms to new areas. USCG would not reuse any existing in-water piles or structures and would dispose of them in accordance with applicable regulations. USCG would inspect temporary piles and equipment for invasive invertebrates prior to use and would use new piles when practicable. Strong tidal currents in Gastineau Channel are expected to disperse suspended sediments relatively quickly, allowing conditions in the action area to return to baseline following completion of in-water work. Most effects are expected to be temporary, as the estimated timing of in-water construction is no more than 12 months, and fish are likely to move only short distances and return after construction. USCG would dispose of dredged material at a USACE-approved offshore site under a CWA Section 404 permit to minimize impacts on fish and benthic invertebrates. If DTH drilling generates slurry or cuttings that are discharged to surface waters, USCG would obtain authorization under CWA Section 402. USCG would implement project-specific BMPs and follow NMFS-recommended in-water work windows, when practicable, to avoid or minimize effects on federally

managed fish species and EFH. If in-water work between 15 April and 1 June (during salmon smolt outmigration periods) were necessary to meet the construction schedule and support mission readiness, USCG would implement additional mitigation measures as practicable, such as using attenuation devices (e.g., bubble curtains, pile caps) during impact pile driving and following best practices for pile removal and dredging to minimize sediment plumes during wharf demolition and dredging. Removal of creosote-treated timber piles, a known toxic marine pollutant, may provide long-term benefits to aquatic species (Limpinsel et al. 2023).

Construction of an OCSP bulkhead wharf would also result in the permanent loss of approximately 1 acre of nearshore marine habitat, reducing habitat complexity and overall value for species and life stages that rely on shallow intertidal and nearshore areas; however, this represents a small portion of EFH throughout Southeast Alaska and the Gulf of Alaska in an area of highly modified shoreline. USCG would mitigate adverse effects by implementing avoidance and minimization measures, BMPs, and NMFS conservation recommendations. Therefore, the effects would not be significant. Refer to the EFH Assessment in Appendix B for additional detail.

Vessel strikes have been documented to cause injury or death in marine mammals in Alaska. Most vessel strikes result from vessels less than 49 feet long traveling at speeds greater than 13 knots (USCG 2021). Vessels associated with the Proposed Action would implement mitigation measures such as whale approach and avoidance guidelines, avoidance of Steller sea lion haulouts, and soft-start requirements for impact pile driving and DTH drilling, thereby reducing the likelihood of injury from vessel strikes. Therefore, the risks of physical injury from vessel strikes or behavioral disturbance from vessel noise during construction would be low. Dredging may cause temporary avoidance or minor behavioral changes, but adherence to BMPs, prescribed shutdown zones, and seasonal timing restrictions would minimize effects.

Underwater noise can be continuous, such as vessel engines or vibratory pile driving, or impulsive, such as impact pile driving, which produces brief, high-intensity sounds. DTH drilling generates both continuous and impulsive noise. Impulsive noise is typically louder, posing a greater risk of auditory injury to marine mammals and the greatest potential behavioral, injury, and mortality effects in fish, whereas continuous noise often affects marine mammals over greater distances. Pile installation and removal may use a combination of impact driving, vibratory driving/extraction, and DTH drilling. Impact pile driving repeatedly strikes the top of a pile with a high-energy hydraulic, diesel, or drop hammer, producing impulsive noise. This method has a higher potential to cause auditory injury, though risk is generally limited to animals nearby or exposed for extended periods. Vibratory pile driving and removal use high-frequency vertical vibrations to reduce soil friction and drive or extract piles. When bedrock or hardpan soils are encountered, DTH drilling may be used to create rock sockets for pile placement or install tension anchors to prevent pile heaving. DTH drilling uses a rotating percussive hammer that strikes the rock and lifts the cuttings to the surface with compressed air, producing both continuous and impulsive noise. Among continuous sources, DTH drilling is typically louder than vibratory pile installation or removal and therefore produces the largest marine mammal behavioral disturbance zones.

All underwater sound pressure levels (SPLs) used in this section are presented in decibels (dB) referenced to (re) 1 micropascal (1 μPa) unless otherwise noted. Underwater SPLs are often reported in terms of the instantaneous peak dB (dB peak) SPL, the root-mean-square dB (dB rms) SPL, or the accumulated sound energy exposure level over 24 hours (dB SEL). SELs are referenced to 1 $\mu\text{Pa}^2\text{s}$ (re 1 $\mu\text{Pa}^2\text{s}$).

NMFS designates 150 dB rms as the threshold for behavioral disturbance in fish (NOAA Fisheries 2023). Cumulative sound exposure thresholds (dB SEL_{cum}) are 187 dB for fish greater than 2 grams and 183 dB

for fish less than 2 grams for species without a swim bladder (or with a non-functional swim bladder) (Popper et al. 2014). Fish may be injured by impulsive noise exceeding 206 dB peak. Under the pile-supported wharf scenario (the installation method assumed to produce the greatest impact), assuming impact pile driving of 36-inch piles (the largest piles expected), the highest SPL would reach up to 193 dB rms, attenuating to approximately 150 dB rms at 24,133 feet from the source in open water on the western side of the ROI. However, the largest piles expected on the western side are approximately 24 inches in diameter. Impact driving of 24-inch piles would produce a lower source level (approximately 190 dB rms), attenuating to 150 dB rms approximately 15,200 feet from the source. Sound levels from impact pile driving may reach 213 dB peak and 185 dB for a single strike. The maximum SPL would be lower on the eastern side, which includes the access trestle, pier, covered moorage, and eastern half of the wharf, where landforms along Gastineau Channel and Douglas Island would restrict underwater sound transmission to roughly 19,700 feet. Accordingly, the maximum distance defining the ROI for behavioral disturbance in fish is approximately 19,700 feet (Figure 2 in Appendix B EFH Assessment). Noise from pile driving could temporarily disturb fish behavior and, in some cases, cause physical injury, particularly in species with swim bladders such as salmonids, Pacific cod, and walleye pollock. Outmigrating juvenile salmon are especially susceptible during spring. Prolonged underwater noise can disrupt communication in marine mammals and, in some cases, cause behavioral disturbance, injury, or mortality in fish. USCG would minimize adverse effects by avoiding in-water work between 15 April and 1 June (during salmon smolt outmigration periods). If in-water work were required during this period, USCG would, as practicable, employ additional mitigation measures such as attenuation devices (e.g., bubble curtains, pile caps) during impact pile driving to reduce underwater noise.

Marine mammal effects are assessed in terms of Level A and Level B harassment, which is evaluated using received sound levels, modeled or measured distances to thresholds, and species-specific hearing sensitivities established by NMFS. NMFS uses generalized received-level thresholds to estimate the onset of Level B behavioral harassment: 120 dB rms for continuous/non-impulsive sources and 160 dB rms for impulsive/intermittent sources (NOAA Fisheries 2025I). NMFS has also established Level A thresholds for auditory injury for each marine mammal functional hearing group based on their generalized hearing ranges (Table 4 in Appendix B). Exceedance of the peak SPL or SEL thresholds constitutes Level A harassment under the MMPA and “harm” under the ESA. Both auditory and behavioral harassment are considered incidental take under these statutes. USCG has initiated consultation with NMFS and USFWS regarding impacts to species protected under the ESA and MMPA. A supporting BA is included in Appendix B.

The largest Level A harassment zones for humpback whales (11,752 feet) and Steller sea lions (3,900 feet) would result from DTH drilling of up to two 48-inch piles in a day. Impact pile driving of up to four 36-inch steel piles on a given day results in similarly large Level A harassment zones (10,780 feet and 3,570 feet, respectively). Level B zones may reach up to 44,600 feet along the southwestern shore of Gastineau Channel resulting from DTH drilling of one 24-inch pile on a given day for 50% of the west side wharf and fender piles (Tables 6 and 7 and Figures A-1 and A-2 in Appendix B). Under the MMPA, USCG intends to request 2,940 Level B takes of Steller sea lions and 156 Level B takes of humpback whales. Of these, an estimated 1.4% of Steller sea lions (41 individuals) may belong to the ESA-listed wDPS, and 2.4% of humpback whales (four individuals) may belong to the ESA-listed Mexico DPS. The final project design is expected to remain within the assessed parameters and not exceed the requested takes; if it does, USCG would reinitiate consultation with NMFS.

Noise produced by the Proposed Action could temporarily alter marine mammal behavior, cause short-term displacement, and in some cases, result in auditory injury (Level A harassment) or behavioral disturbance (Level B harassment). Underwater background noise levels near Station Juneau range from

120 to 130 dB, with seasonal peaks during summer (HDR, Inc. 2018, as cited in USCG 2021). Vessel operations associated with construction and homeporting would contribute to overall ambient noise. Vessels supporting the Proposed Action would operate at speeds of 13 knots or less, allowing animals time to respond to approaching vessel noise. Vessel speeds in the project area would be 10 knots or less; therefore, construction vessel noise is expected to be comparable to local background levels. Although temporary behavioral effects are likely, most marine mammals are expected to move short distances and return after construction, and the probability of injury is low. Following C&D of in-water infrastructure, operational noise from the cutters and additional visiting vessels would contribute to the overall noise environment in the downtown waterfront harbor area. USCG has previously undertaken a programmatic ESA consultation addressing the impacts on protected marine species from vessel activity in support of the Arctic Shield Operations Plan to conduct operations and training events through 2029 to ensure mission readiness in the U.S. Arctic Region (USCG 2026b). Additionally, USCG has issued directives ensuring that actions carried out by USCG vessels and aircraft are not likely to jeopardize the continued existence, taking, or harassment of any animal subject to the protection of the ESA and MMPA, including whale-avoidance procedures requiring appropriate alertness, caution, and reduction in speed when transiting critical habitat, migratory routes, and high-use areas (NOAA Fisheries 2024b). USCG has also completed a separate programmatic ESA consultation associated with vessel construction and operation in Alaska and Arctic waters under the Polar Security Cutter Program to address the impacts on protected marine species from these activities (NOAA Fisheries 2020b).

Northern sea otters may experience temporary avoidance or altered movement patterns from noise but are unlikely to sustain injury due to limited spatial overlap with ensonified areas. Steller sea lions and harbor seals could be affected by impulsive or continuous noise, though the nearest haulouts are outside the ROI. Pinniped species, including northern fur seals, California sea lions, and northern elephant seals, could experience short-term behavioral responses to noise; however, airborne sound from impact pile driving is less than the levels likely to cause disturbance at haulout distances.

Whales and porpoises may temporarily avoid areas with elevated noise, alter swimming behavior, or experience short-term auditory threshold shifts. The likelihood of permanent injury or long-term displacement is low, as these species are generally transient in shallow nearshore waters and most construction-related noise effects are localized. Sound levels from operational and construction vessels, combined with adherence to whale-avoidance procedures, shutdown zones, and low vessel speeds, further minimize the risk of injury or harassment. Overall, most effects would be temporary, behavioral, and reversible, with the probability of Level A harassment (auditory injury) low and Level B harassment (behavioral disturbance) limited to the duration of pile driving and dredging.

USCG would implement mitigation measures throughout construction, including standard in-water work BMPs, Protected Species Observer monitoring and shutdown protocols, soft-start procedures for pile driving, vessel speed restrictions, and adherence to avoidance measures for protected species. Additional details on proposed marine mammal monitoring and mitigation measures are provided in Section 2.4 of Appendix B.

No IBAs, migratory bird colonies, or golden eagle nests have been documented within the ROI. In accordance with 50 CFR 22.280, a general permit may be required if loud, intermittent noises (e.g., blasting) occur within 0.5 miles of an in-use bald eagle nest. As of 2021, no bald eagle nests have been identified within 0.5 miles of the ROI (ABR and USFWS 2021); therefore, a permit is not anticipated. Protected bird species are unlikely to be present in the ROI during project implementation, as the area is heavily developed with little to no suitable nesting habitat. Therefore, the Proposed Action would have no effect on these species. If any small vegetated areas or large trees suitable for nesting birds, including

bald eagles, were encountered during the recommended nesting avoidance window of 1 March to 5 September for vegetation clearing/ground-disturbing activities in Southeast Alaska (USFWS 2026d), USCG would perform a nest survey prior to initiating those activities. Additionally, USCG would follow USFWS guidance to avoid disturbing eagles, including no vegetation clearing within 330 feet of nests and no construction within 660 feet from 1 March to 1 June. From 1 June to 31 August, construction must remain 660 feet away from active nests until juveniles have fledged. Nest trees must remain undisturbed at all times (ADNR 2026c).

Construction workers would follow the general USFWS nationwide avoidance and minimization measures to reduce impacts to birds and their habitats, including (USFWS 2024):

- Educate all employees, contractors, and/or site visitors of relevant rules and regulations that protect wildlife.
- Prior to removal of an inactive nest, verify that the nest is not protected under the ESA or the BGEPA. Nests protected under these acts cannot be removed without a valid permit.
- Do not collect birds (live or dead) or their parts (e.g., feathers) or nests or remove active nests without a valid authorization or permit.
- Provide enclosed solid waste receptacles at all project areas. Non-hazardous solid waste (trash) should be collected and deposited in the onsite receptacles. Solid waste should be collected and disposed of by a local waste disposal contractor.
- Notify the local USFWS Office of Law Enforcement if it is suspected that birds were illegally killed or if five or more birds are found dead.

If USCG determines during project implementation that take of species protected under the MBTA and/or BGEPA may be necessary, USCG would coordinate with USFWS to obtain a federal permit and employ any additional BMPs recommended by USFWS for this project as necessary to avoid adverse effects on protected birds.

5.7.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport a second cutter in Juneau, recapitalize the existing wharf, or construct new infrastructure to support homeporting. USCG would not conduct demolition of existing infrastructure or construction of new infrastructure to support the incoming cutters. The ROI is located within a fully developed portion of downtown Juneau and contains no native or invasive terrestrial vegetation; therefore, vegetation communities typical of the surrounding coastal temperate rainforest ecosystem would remain unchanged in adjacent areas outside the ROI. Aquatic vegetation would also remain unaffected. The shoreline adjacent to the existing wharf consists of human-made permeable structures with no aquatic vegetation present, and the deeper nearshore waters do not support substantial SAV. No eelgrass beds occur within the ROI, and only minimal intertidal vegetation occurs nearby; therefore, no effects on SAV or eelgrass habitat would occur. Terrestrial wildlife and birds that may use areas surrounding the downtown waterfront would continue to experience the existing urban environment and background levels of human activity. Because no construction or operational changes would occur, there would be no additional disturbance from noise, human presence, or habitat alteration. No IBAs, migratory bird colonies, or bald or golden eagle nests have been documented within the ROI.

Activities that could disturb marine habitats would not occur. Bottom sediments would remain undisturbed, and there would be no construction-related underwater noise or permanent loss of marine habitat beneath new structures. Fish, benthic macroinvertebrates, and photosynthetic organisms would

continue to occupy the area under existing conditions. Marine mammals in the ROI would continue to experience the existing ambient noise environment, which is already dominated by vessel traffic in Gastineau Channel and the downtown Juneau waterfront. There would be no additional noise-related behavioral disturbance, auditory injury, or risk of incidental take under the ESA or MMPA associated with the project above ambient levels. Similarly, the risk of vessel strikes would remain at baseline condition background levels. Overall, there would be no effect on biological resources from the No Action Alternative.

5.7.4 Reasonably Foreseeable Effects

The Proposed Action, along with other past, present, and reasonably foreseeable actions in the vicinity of Station Juneau, would contribute incrementally to construction activity and vessel traffic in the Juneau area. Because the Sweetheart Lake Hydroelectric Project would occur outside the downtown waterfront, direct overlap with the Proposed Action is unlikely, and potential cumulative effects would be limited to intermittent regional construction and marine transport. The Áak'w Landing project occurs within the same general waterfront area as the Proposed Action, and construction could overlap spatially or temporally, potentially resulting in short-term increases in underwater noise, vessel traffic, and human activity in Gastineau Channel. Once operational, incremental increases in vessel activity and background noise in the downtown waterfront harbor area could occur. However, these effects would occur in an already highly developed and heavily trafficked urban waterfront, and implementation of standard construction BMPs and marine species protection measures would minimize the potential for cumulative effects on marine habitats and wildlife. Consequently, there would be no significant reasonably foreseeable effects.

5.8 CULTURAL RESOURCES

5.8.1 Definition of Resource

The NHPA of 1966 (54 USC 300101 et seq.) was enacted to protect historic and archaeological sites across the U.S. It established the National Register of Historic Places (NRHP), a comprehensive list maintained by the NPS of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture; SHPOs and Tribal Historic Preservation Offices/Officers (THPOs), which oversee State Historic Preservation Programs in coordination with public and private entities; and the Advisory Council on Historic Preservation, an independent federal agency that advises the President and Congress, reviews and recommends policy improvements, and coordinates preservation efforts nationwide. Section 106 of the NHPA requires federal agencies, in consultation with the SHPO/THPO and other stakeholders, to consider the effects of their actions (“undertakings”) on historic properties, or “prehistoric and historic archaeological sites, structures, buildings, districts, landscapes, or other locations or objects determined to be important for scientific, traditional, religious, or societal reasons.” The regulations implementing Section 106 are set forth in 36 CFR 800.

The term “historical, architectural, archaeological, and cultural resources” refers to tangible remains and material evidence resulting from past human activity and/or specific locations of historic or traditional importance. These resources include historic properties as defined under the NHPA. The list is varied and ranges from 20th century buildings and structures to Native American and Alaska Native sacred sites and Traditional Cultural Properties (TCP).

The Alaska Heritage Resources Survey (AHRS) is a statewide inventory of reported historic, prehistoric, and archaeological sites within Alaska, maintained by the ADNR Office of History and Archaeology (OHA).

It serves as a data repository for information on cultural resources, including buildings, structures, objects, and sites. The AHRS is used for research, planning, and protection of these resources.

5.8.2 Affected Environment

As defined under 36 CFR 800.16(d), the Area of Potential Effect (APE) is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. The APE is determined by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking. For the purposes of this analysis, the term APE is synonymous with ROI. USCG has defined the APE for the undertaking as an almost “T”-shape comprising the shared USCG and NOAA wharf (“Subport Wharf”) and adjacent USCG Station Juneau building (AHRS sites JUN-01059 and JUN-01294, respectively). It also includes an approximately 550-foot by 80-foot floating pier and 135-foot by 35-foot trestle, for a total of roughly 3 acres. The APE is centered roughly at 58.298331, -134.412136 and can be found on USGS topographic map Juneau B-2 SE (Copper River Meridian), Township 41 S, Range 67 E, Section 23 (Figure D-5).

The APE for indirect effects is a 1,000-foot buffer to account for potential audio and visual construction disturbance.

5.8.2.1 Historical Context

CBJ is located on land that was once inhabited by the Tlingit Indians who hunted, gathered, and fished the waters of Gastineau Channel. While Russian explorers and fur traders traveled the area previously, it was not until the mid-19th century that the area garnered widespread Euro-American exploration. In 1880, gold caught the attention of prospectors Joe Juneau and Richard Harris, who went on to stake out a 160-acre town on the site the same year (Wood Environment & Infrastructure Solutions, Inc. and Brice Engineering, LLC [Wood and BEL] 2020).

The community that sprung up because of the gold rush quickly became a booming town that was named the territorial capital in 1900, 6 years before the government seat was officially moved there from Sitka. In the first year of its founding, Juneau witnessed the opening of several general stores, a bakery, a drug store, a blacksmith shop, and several saloons. By May 1881, there were approximately 450 Native Alaskans and 150 Euro-Americans living there. During the rapid growth in the town’s early years, it remained a gold mining stronghold. Eventually, however, various circumstances would put an end to the gold mining era of Juneau, including cave-ins, floods, and depletion of gold (Wood and BEL 2020).

Although gold and hard rock mining and milling ceased in the early-to-mid-20th century, the city continued to prosper and grow. In 1935, the growth occasioned the construction of a bridge connecting Juneau proper with Douglas Island. Other reasons for the area’s growth and success include its strategic location as the gateway to Alaska on the inside passage to the state, its role as the capital of Alaska and center for state government, rich fishing grounds and commercial fishing fleet, forestry, and tourism. Today, the population exceeds 32,000, which represents growth of approximately 1,000 since 2010 (Wood and BEL 2020).

5.8.2.2 Architectural Resources

The city of Juneau, particularly the urban downtown area in which JUN-01059 and JUN-01294 are located, has had numerous buildings surveyed and evaluated throughout the years. The AHRS contains over 450 listings for structures and districts within 1 mile of Station Juneau. Most of these, however, are not visible from Station Juneau and are not related to its history or mission. The closest AHRS listings—the only AHRS-

listed properties visible from the station—as well as JUN-00456, the NRHP-listed historic downtown district, and JUN-00313, the Telephone Hill Historic District, were reviewed as part of this study. These are listed in Table 5.8-1. Neither Station Juneau (JUN-01294) nor the NOAA Subport Wharf (JUN-01059), which are the only AHRs properties within the APE, are eligible for the NRHP (ADNR 2026d).

Table 5.8-1 Previously Recorded Historic Structures and Districts

AHRs NO.	NAME	STRUCTURE TYPE	ADDRESS	DISTANCE (feet)	ELIGIBILITY
JUN-01294	Station Juneau Building	Administration	345 Egan Drive	Within	Not eligible
JUN-01059	NOAA Subport Wharf	Wharf	250 Egan Drive	Within	Not eligible
JUN-00313	Telephone Hill Historic District	Historic district	South of Third Street, Main Street, Willoughby Avenue, and Egan Drive	375	Unevaluated
JUN-00120	Pacific Coastal Steamship Wharf	Wharf	2 Marine Way	470	Not eligible
JUN-00188	ILWU Hall	Social hall (demolished)	222 Willoughby Avenue	820	Not eligible, demolished
JUN-01124	Alaska State Museum	Museum (demolished)	395 Whittier Street	790	Was eligible, demolished
JUN-01285	National Guard Armory	Armory	350 Whittier Street	400	Not eligible
JUN-00456	Juneau Downtown Historic District	Historic district	Second, Front, Main, Seward, Franklin Streets	1,400	Listed on NRHP

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

5.8.2.3 Archaeological Resources

Downtown Juneau is an urban area that has been extensively developed. There are no archaeological resources in the vicinity of Station Juneau, nor are there any listed shipwrecks near the Proposed Action (NOAA 2026).

5.8.2.4 Traditional/Alaska Native Resources

Three federally recognized Tribes have ancestral ties to Station Juneau lands: Douglas Indian Association, Hoonah Indian Association, and the Central Council of the Tlingit and Haida Indian Tribes. In accordance with Section 106 of the NHPA and its implementing regulations, USCG consulted with these Tribes on a government-to-government basis. Additional Alaska Native organizations coordinated with include HTC, Goldbelt, Inc., and Sealaska Corporation. Appendix A presents the full list of these organizations as well as consultation correspondence. No TCPs, sacred sites, or sites of traditional cultural importance have yet been identified at Station Juneau.

5.8.2.5 Visual Resources

The downtown waterfront harbor area is in the heart of downtown Juneau and near historic districts as well as state government buildings. However, the topography and urban landscape of the city obscure views of the harbor for most of the downtown area. Additionally, during much of the year cruise ships dock next to the Juneau Downtown Historic District, which block the view between the harbor and downtown. Viewsheds from the harbor and the project area include docks and wharves, along with Egan Drive to the north; cruise ship docks to the east; and the waters of Gastineau Channel and the hills of Douglas Island to the south and west. Low clouds, fog, and precipitation obscure the view for much of the year. While some areas outside of Juneau have a view of the harbor, such as Mendenhall Glacier (10 miles to the north of the project area), Mount Juneau (5 miles to the northeast), Roberts Peak (3.5 miles to the east), and Gastineau Peak (2.5 miles to the east), these are far removed from the project area.

5.8.3 Environmental Consequences

Effects on cultural resources can occur by physically altering, damaging, or destroying a resource or by altering characteristics of the surrounding environment that contribute to the resource's significance. Direct effects entail physical changes to a historic property. Indirect effects usually occur through increased use, visual disturbance, or noise.

To evaluate effects, historic properties are subject to the criteria of adverse effect found in 36 CFR 800.5. An adverse effect to historic properties occurs when an undertaking or action alters, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP. Adverse effects can include:

- Physical destruction of or damage to all or part of the property
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, and stabilization
- Removal of the property from its historic location
- Change of character in the property's use or of physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features

If an undertaking directly or indirectly affects a property in a manner that does not permanently alter its integrity or NRHP eligibility, then it is not an adverse effect.

5.8.3.1 Proposed Action

No significant adverse effects on cultural resources that qualify as historic properties would occur as a result of the Proposed Action. There are no historic properties within the direct effects APE. Neither USCG Station Juneau (JUN-01294) nor the NOAA Support Wharf (JUN-01059), which are the only AHRs properties within the APE, are eligible for the NRHP (ADNR 2026d). Ground disturbance from the Proposed Action is restricted to areas previously developed with little to no potential for intact archaeological remains. No aboveground historic properties would be altered or affected. Any auditory or visual effects on nearby historic properties would be negligible. Large cruise ships, commercial buildings, and Egan Drive block most of the views of the APE from downtown Juneau. Homeporting the *Storis*, or an additional cutter, and constructing the associated in-water infrastructure is consistent with the harbor's context as

a port for large ships, such as the existing USCG buoy tender. Thus, no significant effects would occur. Potential auditory effects from temporary construction noise would not be significant.

5.8.3.2 No Action Alternative

Under the No Action Alternative, there would be no ground or in-water disturbance in the ROI and no associated infrastructure improvements. There would be no effect on historic, architectural, archaeological, or cultural resources.

5.8.4 Reasonably Foreseeable Effects

The Proposed Action, along with past, present, and reasonably foreseeable actions at Station Juneau, would have no adverse effects on historic architectural, archaeological, or cultural resources. USCG would evaluate and mitigate the potential effects prior to project implementation in accordance with Section 106 of the NHPA and its implementing regulations and other pertinent state and federal cultural resource legislation.

5.9 SOCIOECONOMIC RESOURCES

5.9.1 Definition of Resource

NEPA requires consideration of the human environment when social and physical environmental effects are interrelated. Socioeconomics refers to the demographic and economic characteristics of an area and its population. Demography specifically refers to the composition of a population in an area and considers factors such as age and race. Indicators of economic conditions for a geographic area can include median household income, employment data, and housing. Employment data identify employment by industry or trade and unemployment trends. Income data are used to compare the effects of jobs created or lost as a result of a proposed action. Data on industrial, commercial, and other economic sectors provide baseline information about the economic health of a region. Changes in demographic and economic conditions are typically accompanied by changes in other community components such as housing availability, education, and the provision of installation and public services.

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children. These risks may arise from exposure to environmental contaminants in media such as air, water, soil, or food, particularly when children are likely to come into contact with or ingest such substances. As part of a NEPA analysis, the EO calls for evaluation of whether the Proposed Action could pose such risks and encourages consideration of measures to avoid or mitigate potential adverse effects on children.

5.9.2 Affected Environment

The ROI for Socioeconomic Resources is the CBJ, which encompasses 3,248 square miles (CBJ 2013). For the purposes of this analysis, the ROI does not distinguish between the City of Juneau, Douglas Island, or the borough overall. Data for the State of Alaska (SOA) and the U.S. are presented for comparative purposes.

5.9.2.1 Population

The CBJ population was 31,572 in 2024, according to the U.S. Census Bureau (Census). Table 5.9-1 presents population characteristics.

Table 5.9-1 Population Characteristics

AREA	POPULATION	PERCENT FEMALE	PERCENT MALE
City and Borough of Juneau	31,572	49.4%	50.6%
State of Alaska	740,133	47.5%	52.5%
U.S.	340,110,988	50.5%	49.5%

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: Census 2026a

The percentage of persons under 18 years old is slightly lower than statewide and nationwide percentages, but the 65 years and older population is higher than SOA's average and almost in line with the U.S. overall (Census 2026a). Additionally, the 65 years and older age group is expected to increase at a higher rate than the total population and is forecast to make up 20% of CBJ residents by 2050 (CBJ 2024a). Local demographic characteristics are comparable with SOA averages but have higher percentages of Alaska Native/American Indian (AN/AI) representation as well as higher Asian and multi-racial populations than the rest of the U.S. Table 5.9-2 presents demographic characteristics.

Table 5.9-2 Demographic Characteristics

CATEGORY	JUNEAU	ALASKA	UNITED STATES
Percent Children	24.5%	29.8%	27.0%
Percent Elderly	17.5%	14.8%	18.0%
RACE ¹			
White Alone (not Hispanic or Latino)	67.4%	63.8%	74.8%
Black or African American	1.5%	3.7%	13.7%
Alaska Native or American Indian	12.1%	15.5%	1.4%
Asian	7.7%	7.0%	6.7%
Native Hawaiian or Pacific Islander	1.3%	1.8%	0.3%
Two or More Races	9.9%	8.2%	3.1%
Hispanic or Latino	7.4%	7.7%	20.0%

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: Census 2026a

¹ Methodology differences may exist between Census data sources. Therefore, estimates from different sources may not be comparable. Some estimates come from sample data and may render errors.

5.9.2.2 Economic Activity

Juneau's economy is supported by local, state, and federal employment along with other private industries such as tourism, fishing, and mining. State government is the most frequent source of jobs and income, accounting for 18% of direct local employment. The Juneau School District (JSD) is the largest city employer, and NOAA is the largest federal employer. Tourism is the largest private sector employer followed by mining, primarily silver and gold. The mining industry's annual payroll was \$126 million in 2023 (Juneau Economic Development Council [JEDC] 2024). Other key economic industries include

healthcare, construction, seafood, and several Alaska Native Corporations. There were over 200 commercial fishing entities in Juneau in 2022, with earnings estimated to exceed \$25 million. The healthcare industry accounts for approximately \$102 million in payroll each year (JEDC 2024).

Juneau’s employment rate is subject to seasonal variability due to tourism and government sector services. Private sector employment increases in the summer with hiring for Juneau's tourism, retail, construction, and manufacturing sectors, while government services and education slow down during that time when schools are closed and the legislature is not in session (JEDC 2025). According to Census data, the civilian labor force unemployment rate for CBJ is 2.6%, compared to 3.0% for SOA and 2.9% nationwide (Census 2026b, 2026c, 2026d). The median income is higher in the CBJ than SOA and the U.S. overall (Census 2026a). The CBJ poverty level is slightly lower than statewide and nationwide trends. Table 5.9-3 presents income, poverty, and employment characteristics.

Table 5.9-3 Income and Employment Characteristics

CATEGORY	JUNEAU	ALASKA	UNITED STATES
Median Household Income (2023 dollars)	\$100,513	\$89,336	\$78,538
Population Percent Below Poverty Level	9.1%	10.2%	10.6%
Unemployment Rate (Civilian Labor)	2.6%	3.0%	2.9%

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Source: Census 2026a-2026d

5.9.2.3 Housing

Home costs in Juneau are some of the highest in Alaska, with house prices averaging \$510,000 in 2023. Juneau was also ranked fifth in the state for the highest average rental costs in 2023. Land availability and the logistics required to import construction materials contribute to the high cost of living, but housing turnover is also low in the CBJ. The population is aging in place and occupies much of the housing market, thereby further limiting the supply (KTOO 2024).

As of 2013, approximately 14,956 acres were zoned for residential use, of which approximately 8,900 acres were vacant, representing 60% of all CBJ residentially zoned land. One challenge to housing development at that time was finding buildable lands within areas that could be connected to municipal water and sewer services and that had extended road access to a given property (CBJ 2013). The value of buildable land varies greatly depending on zoning, site remediation, site conditions, slope, and access to infrastructure, resulting in barriers to affordable housing (CBJ 2024a).

Since 2010, CBJ has experienced flat and/or declining population trends, yet there continues to be a need for quality, affordable housing to serve a range of incomes and other needs. Limited vacancies and overcrowding conditions have resulted in “an immediate need” for at least 400 new housing units in Juneau. The lack of available housing influences other socioeconomic conditions such as job market vacancies that go unfilled due to housing shortages. In 2024, the Southeast Alaska Regional Health Consortium (SEARHC) had 106 open positions for highly skilled healthcare workers and administrative professionals, but limited housing inventory, by either price point or quality, presented barriers to recruiting experienced personnel (CBJ 2024a).

The Alaska Housing Finance Corporation reported a 4% rental vacancy rate in 2023, while the home ownership vacancy rate dropped from 1.2% in 2020 to 0.6% in 2022. A “normal” vacancy rate is 5%, allowing families to move in and out of units due to normal relocation patterns. A vacancy rate lower than 5% in the CBJ indicates that meeting future demand for new housing will require additional housing construction. There is no extra supply within the current housing market to absorb future demand and more than 20% of existing structures are single-family homes built more than 50 years ago (CBJ 2024a).

The only USCG-owned housing is the Representative Facility where the District Admiral lives. USCG also leases two 2-bedroom apartments in Auke Bay which provide housing for four total staff (M. Meek, personal communication, 4 February 2026). The need for additional housing to support incoming service members and their dependents will be evaluated under a separate NEPA analysis.

5.9.2.4 Education

JSD provides public education for approximately 4,000 students from Pre-K through grade 12. Online education is also available through the HomeBRIDGE Program (JEDC 2024; JSD 2026). JSD is the fifth largest school district in Alaska with six elementary schools, a middle school, a Pre-K-8 Montessori school, a K-8 Charter school, a K-8 Tlingit Culture, Language, and Literacy school, and an alternative high school. The student population is 43% white, 24% multi-racial, 13% AN/AI, 10% Asian and/or Pacific Islander, 10% Hispanic, and 1% Black or African American (JEDC 2024).

The district has experienced a decline in enrollment for decades and an increase in operating costs leading to discussions of consolidating programs or reorganizing budget commitments (Alaska Public Media 2024; CBJ 2024b). The declining enrollment reflects statewide demographic changes, rising costs, and flat state funding. Recommendations for balancing the budget included personnel reductions, consolidating schools, and increasing the student-to-teacher ratio (CBJ 2024b).

The University of Alaska has a campus, University of Alaska Southeast (UAS), roughly 12 miles from downtown Juneau. Higher education through certificates, technical and vocational training, and 2-year and 4-year degree programs are available through UAS’s schools of Arts and Sciences, Education, and Career Education (JEDC 2024). UAS also offers graduate degrees in Business Administration, Public Administration, Teaching, and Educational Leadership.

5.9.2.5 Public Services

Barlett Regional Hospital is the largest healthcare provider in the ROI, followed by SEARHC. Barlett Regional Hospital offers a full range of medical services as well as 57 inpatient beds, 16 substance misuse treatment beds, and approximately 90 apartments in a senior living facility. SEARHC is a non-profit health consortium serving Tribal communities throughout Southeast Alaska. SEARHC has a walk-in clinic in 28 communities, including Juneau. There are numerous private practitioners in the ROI, as well as an urgent care clinic, a public health center, a family birth center, and other nursing and residential care options. Ambulance and emergency medical services in CBJ are provided by Capital City Fire and Rescue (JEDC 2024). The USCG Arctic District is responsible for performing search and rescue operations in the surrounding waters. A Memorandum of Understanding between USCG and CBJ is in effect for emergency response needs (e.g., fire, law enforcement) at Station Juneau.

Other public services managed by CBJ include parks and recreation, public works, the ski area, the public library, docks and harbors, law enforcement and fire response, and public transportation (CBJ 2026b).

USCG offers some recreational activities for Active Duty and their dependents, and other personnel who reside in Juneau. The Morale, Recreation, and Welfare Program has coolers, fishing poles, games, and two

20-foot skiffs that can be loaned or rented out to the 25 USCG staff members assigned to Station Juneau. The Buoy Deck bar and grill is located inside the Station Juneau building. Fitness facilities are also available (M. Meek, personal communication, 4 February 2026).

5.9.3 Environmental Consequences

Effects on socioeconomic resources would be significant if the Proposed Action would displace residents or businesses; substantially alter community cohesion or land use patterns; cause a measurable decline in economic stability, employment, or access to public services; or violate federal, state, or local regulations, including EO 13045.

5.9.3.1 Proposed Action

Activities associated with the Proposed Action would be localized to the USCG Station Juneau property, including the wharf and waterfront. There would be no significant effects on onshore land use patterns, employment, or public services. CBJ's unemployment rate is lower than that of Alaska and the nation, and the influx of USCG dependents—many of whom are children—would not have a significant adverse effect on the local job market. Some economic sectors, such as retail or construction, may experience beneficial economic effects during C&D. JSD may potentially benefit from an increase in student registration if USCG personnel relocating to CBJ have dependents who enroll in public school.

It is anticipated that up to 638 Active Duty personnel and their families could relocate to Juneau by 2029 to support the homeporting of the *Storis* and an additional cutter (USCG 2025d; F. Cole, personal communication, 24 March 2026). This represents approximately 2% of the total CBJ population. The population increase could place additional demand on Juneau's housing market, which is already experiencing a shortage. To reduce the potential for adverse housing-related effects, USCG is actively seeking solutions to accommodate the incoming personnel and dependents, including the potential construction or development of additional housing, if needed. USCG intends to collaborate with CBJ and local housing developers as part of a broader community housing initiative. In Fall 2025, USCG issued a non-binding Request for Information to local developers and business leaders to collect market information, identify feasible housing solutions and development opportunities, and gauge private sector interest in supporting projected housing needs associated with the Proposed Action, including a proposed lease-to-purchase model under which USCG would lease a portion of newly constructed housing developed by private entities and may retain an opportunity to purchase the leased units at a later date. Eight developers expressed interest in the model, and USCG plans to release a more detailed Request for Proposals later in 2026. The anticipated population increase would represent a small proportion of the total population and would not be expected to displace existing residents or businesses; reduce access to community facilities or public services; or fragment established neighborhoods or social networks that contribute to community cohesion. For these reasons, socioeconomic effects associated with the projected population increase would not be significant. In addition, relocation of personnel and dependents could result in beneficial economic effects through increased local spending and demand for goods and services and increased school enrollment, potentially offsetting the district's increased operating costs.

The tourism industry could experience temporary adverse effects during construction if tourism-related services and/or attractions adjacent to the project area require short-term operational adjustments or modified access. As identified in the Juneau Small Cruise Ship Infrastructure Master Plan (CBJ 2020), expansion of the floating berth into areas currently used by float planes and larger cruise ships could create navigational challenges or operational constraints within the harbor and may require the relocation

of day excursion boats currently using the dock. A 2025 Navigational Study (USCG 2025c) concluded that the Proposed Action would not negatively impact cruise ship operations within Gastineau Channel or navigational access within the harbor; therefore, adverse effects on cruise ship traffic and associated tourism activity, including long-term displacement of tourism-related marine operators, are not anticipated. Construction-related effects such as increased noise and impaired scenery on nearby onshore tourism services such as restaurants, museums, kiosks, or bus tours would be temporary and localized. The Proposed Action is not anticipated to adversely affect seafood processing operations within the ROI because no demolition or construction would occur near the Taku Fisheries facility and no USCG vessels would dock or transit near its location.

USCG has hosted two Information Sharing Sessions for identified stakeholders (Table A-1) and has planned an Open House during the Draft SEA public comment period. The Information Sharing Sessions, Open House, and 30-day comment period offer opportunities for residents, businesses, and regulatory agencies to interact with USCG and provide feedback that may be incorporated into the analysis. These coordination efforts are intended to help identify and address concerns during project planning and implementation.

5.9.3.2 No Action Alternative

The proposed homeporting of the *Storis* at Juneau, Alaska, is a separate but related action that was evaluated under NEPA in the *Polar Security Cutter Acquisition Program Supplemental Environmental Assessment/Overseas Environmental Assessment to Acquire a Commercially Available Icebreaker* (USCG 2024a). A Finding of No Significant Impact was signed on 14 November 2024. Therefore, the *Storis* homeporting action is a future baseline condition and will occur regardless of whether the Proposed Action is implemented. The Proposed Action includes construction of housing to accommodate incoming personnel from both the *Storis* and up to one additional major cutter and reduce demand on the local housing market. The details of potential housing accommodations under the Proposed Action, such as location, type, and capacity, are still under development and will be analyzed in an SEA, as appropriate.

Under the No Action Alternative, housing would not be constructed, resulting in greater demand on existing housing resources compared to the Proposed Action. To mitigate adverse impacts in that scenario, USCG could assign *Storis* personnel on “geographically separated status” in which crew members would live aboard the cutter in Juneau while their families remain at their previous duty station. If this were to occur, there would be no net population increase to potentially fill vacant positions with local employers, school district enrollment may continue to decline, and no local firms would be eligible to bid on C&D. No changes to land use, access to community facilities and public services, or populations protected under EO 13045 would be anticipated. It is unknown whether the No Action Alternative would result in the disruption of social networks, neighborhood stability, or community functions that contribute to community cohesion.

5.9.4 Reasonably Foreseeable Effects

Infrastructure upgrades or new facilities near the project area such as HTC’s Áak’w Landing project could have beneficial effects on socioeconomics through increased tourism revenue, employment, and cultural and community events. The Sweetheart Lake and Dorothy Lake hydroelectric projects could have beneficial effects for public utility services in the ROI by increasing electrical power generation and offsetting energy consumption associated with population fluctuations that would occur after USCG personnel and their dependents relocate to Juneau. These projects are described in more detail in Table 5.1-1.

5.10 INFRASTRUCTURE AND UTILITIES

5.10.1 Definition of Resource

Infrastructure refers to the human-made systems and physical structures that support the functioning of a population in a given area. It includes roads, electricity, potable water, wastewater, stormwater, heating and cooling, and solid waste management.

The Safe Drinking Water Act (SDWA) of 1974 (42 USC 300f et seq.) was enacted to protect public health by regulating the nation's public drinking water supply, including rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA authorizes EPA to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants that may be found in drinking water. EPA designated ADEC as the authority for implementing and enforcing the SDWA in Alaska; ADEC's Drinking Water Program ensures public water systems meet federal health-based standards and protects public health. Alaska's drinking water regulations are published in 18 AAC 80 (*Drinking Water*).

5.10.2 Affected Environment

5.10.2.1 Road Network

The Alaska Department of Transportation and Public Facilities (ADOT&PF) is responsible for the maintenance and operation of arterial roads throughout Juneau, including Egan Drive (the primary access road for Station Juneau), Douglas Highway, North Douglas Highway, Thane Road, and Mendenhall Loop (CBJ 2026c). The ADOT&PF Maintenance and Operations Southcoast Region, Southeast District is responsible for the maintenance of these roads and is headquartered in Juneau (ADOT&PF 2026). Non-ADOT&PF roads are maintained by CBJ Streets Maintenance Division, which is responsible for over 250 lane miles of CBJ roads and 32 miles of sidewalks (CBJ 2026c).

A parking lot is present on the north side of Station Juneau and includes approximately 25 parking spots. The parking lot was resurfaced in 2022, and an average of 10 to 15 vehicles are parked outside Station Juneau at a given time (USCG n.d.).

5.10.2.2 Electrical Supply

CBJ's electricity is primarily supplied through hydropower supplemented by diesel (CBJ 2026d). Currently, there are five hydroelectric facilities operating in Juneau—Snettisham/Crater Lake, Salmon Creek, Annex Creek, Gold Creek, and Lake Dorothy Phase I. These facilities produce an average annual generation of 420 gigawatt-hours per year. Energy production from hydroelectric facilities fluctuates based on precipitation: drier years have a lower energy capability, while wetter years have a higher energy capability. During years of low rainfall, hydropower production is supplemented with standby diesel generation. Hydroelectric plants are either owned by Juneau Hydropower, Inc., Alaska Electric Light and Power (AEL&P), or Alaska Industrial Development and Export Authority. Most of the CBJ road system is within the AEL&P service area (CBJ 2026d). Electrical supply at Station Juneau is also supported by one 150-kilowatt emergency generator powered by one 336-gallon diesel AST (Hart Crowser 2005; USCG 2020b).

5.10.2.3 Potable Water Supply

CBJ's potable water is derived from the Last Chance Basin wellfield, located in the Gold Creek watershed, and distributed via a network of over 180 miles of waterline (CBJ 2026e). The wellfield provides two-thirds of Juneau's water; supplemental surface water is collected at the Salmon Creek Reservoir (CBJ 2024c).

5.10.2.4 Wastewater System

Domestic and process wastewater from Station Juneau is treated by CBJ, which has a network of roughly 140 miles of sewer mainlines and 45 lift stations to transfer wastewater to three wastewater treatment plants (WWTPs): Juneau-Douglas WWTP, Mendenhall WWTP, and Auke Bay WWTP (USCG 2024c, CBJ 2026f). All three WWTPs are subject to the requirements of the CWA and operate under NPDES permit AK-002321-3.

5.10.2.5 Stormwater System

A storm drain inlet in the southwest corner of the Station Juneau parking lot is directed to discharge under the wharf into Gastineau Channel. Stormwater surface runoff is also directed to Gastineau Channel (USCG 2018). Station Juneau does not meet the threshold for requiring an MSGP for stormwater discharges from industrial activity.

5.10.2.6 Heating and Cooling System

Building temperatures are managed through heating oil-powered boilers. Heating oil is stored in one 1,500-gallon fireguard double-walled AST at Station Juneau (Hart Crowser 2005). The primary companies providing heating oil for residential and commercial customers in Juneau are Petro Marine Services, Delta Western, and Crowley Fuels.

5.10.2.7 Solid Waste Management

Solid waste disposal at Station Juneau is conducted through CBJ (USCG 2024c). The solid waste is transported to the Capitol Disposal Landfill (formally the Channel Landfill), which has an estimated 10 to 15 years of usability based on current disposal volumes (CBJ 2026g; Jacobs Engineering Group Inc. 2025). Capitol Disposal Landfill accepts municipal solid waste, C&D debris, industrial waste, and special waste. The landfill does not accept hazardous waste (WM 2026). Solid waste generated at Station Juneau includes office, normal duty, and berthing waste (USCG 2020b).

5.10.3 Environmental Consequences

Effects on infrastructure and utilities would be significant if the Proposed Action would result in demands exceeding the capacity of, or causing long-term impairment to, the existing systems and/or services within the ROI.

5.10.3.1 Proposed Action

Road Network

No long-term changes to the configuration of the existing road network are anticipated as a result of the Proposed Action. The Proposed Action could have short-term adverse effects on traffic flow due to increased congestion from contractor vehicles and personnel accessing Station Juneau during C&D. If a

temporary lane closure were necessary, USCG would obtain a lane closure permit from ADOT&PF to minimize traffic flow disturbance.

Following construction, the Proposed Action may have long-term adverse effects on traffic flow due to increased congestion from additional station personnel supporting the cutters and any visiting vessels, as well as the associated population increase. While most of the population increase would occur offsite, incremental traffic from additional households would slightly increase local traffic volumes. However, these effects would not be expected to exceed the capacity of or cause long-term impairment to the road network and would therefore not be significant.

Station Juneau currently has approximately 25 parking spaces, with an average occupancy of 10 to 15 vehicles at any given time (USCG n.d.). The addition of personnel under the Proposed Action could approach or exceed the existing parking capacity. USCG is actively evaluating options to provide additional parking to accommodate the incoming personnel. Consequently, the Proposed Action would not be expected to result in significant adverse effects on the road network or traffic flow.

Electrical Supply

The Proposed Action would have a beneficial effect on the facility's electrical capacity and reliability by upgrading the electrical supply to the existing buildings (NOAA legacy buildings and Station Juneau) and the newly constructed wharf, pier, and covered small boat moorage. The pier would include shore-ties, lighting, fendering, and mooring hardware to homeport one universal major cutter on each side, with at least six heavy duty, military-grade electrical connections (i.e., NATO/Viking plugs) per side (USCG 2025a). Additional power mounds and receptacles may be added as needed, and one or more new diesel generators would likely be installed, as the existing emergency generator could not support the pier in the event of a power outage.

The Proposed Action would require additional electrical capacity to support vessel shore power (shore-ties) and normal building operations. It is estimated that the shore-power system would require electrical service of at least 2,000 amps at 480 volts (3-phase), while station operations would require at least a 300-kilovolt-amp transformer (USCG 2026c). Existing utility infrastructure appears capable of supporting the Proposed Action with localized service modifications and connection upgrades. AEL&P indicated that sufficient capacity is available through an existing 12.47-kilovolt distribution feeder associated with the nearby Capital Substation, which has a 25-megavolt-amp transformer. Station Juneau currently receives power from Second Street Substation, which is served by a 10-megavolt-amp transformer that is already heavily loaded; therefore, the utility would prefer to modify the local service connection ("tie point") to shift the project to the higher-capacity feeder (USCG 2026c). Because existing electrical distribution infrastructure already extends near Station Juneau (the transmission lines end at the corner of Whittier Street and Egan Drive), it is unlikely that the Proposed Action would require construction of new high-voltage transmission infrastructure. Utility coordination and final electrical design would occur during final engineering. Impacts would not be significant, as the Proposed Action would not exceed the capacity of, or cause long-term impairment to, the existing electrical system.

Potable Water Supply

The Proposed Action may result in short-term adverse effects on Station Juneau's potable water supply from construction-related outages or temporary disruptions during the site-wide utility upgrade. Potential mitigation measures include coordinating with CBJ to identify shutdown windows, pressure requirements, and emergency procedures; scheduling utility shutdowns and tie-ins during periods of low demand; and providing advanced notice to facility occupants of any planned outages or pressure reductions. Following

construction, long-term water demand at Station Juneau may increase due to the additional personnel supporting the cutters and any visiting vessels. Additionally, the associated population increase would result in a minor increase in residential water use within the CBJ. These increases would be small relative to system capacity, and the effects on the potable water supply would not be significant.

Wastewater System

The Proposed Action may result in temporary adverse effects on Station Juneau's wastewater system due to increased wastewater generation from construction activities and onsite construction personnel. Following construction, the Proposed Action may result in long-term adverse effects on CBJ's wastewater system from increased wastewater generated by additional station personnel supporting the cutters and any visiting vessels and the associated population increase. CBJ's wastewater treatment system has sufficient capacity to process the additional load, and no NPDES permit exceedances would be necessary. Therefore, there would be no significant adverse effects.

Stormwater System

The Proposed Action may result in short-term adverse effects on stormwater quality from sediment accumulation and equipment runoff during C&D. Implementation of the project CGP and the BMPs established in the project SWPPP would minimize these effects. Following construction, the associated population increase from additional personnel and their families could result in a minor long-term increase in stormwater runoff in the city. This incremental runoff is small relative to the capacity of existing municipal stormwater systems, which are sufficient to accommodate the increase. Station Juneau would continue to employ stormwater control measures and BMPs, including good housekeeping practices, employee training, hazardous materials and hazardous waste storage controls, and proper fueling and fuel storage practices (USCG n.d.). Station Juneau's IERPP documents engineering controls and measures for preventing oil spills from reaching navigable waters at the facility (USCG 2018). With these measures in place, the Proposed Action would not result in significant adverse effects on the stormwater system.

Heating and Cooling System

The Proposed Action would have no effect on the heating and cooling system at Station Juneau, as the hours of operation and building size would remain unchanged and additional station personnel supporting the cutters and visiting vessels would not increase heating fuel consumption at the facility. Increased residential demand within CBJ would be minor relative to overall system capacity. The associated 2% population increase is well within normal year-to-year demand variability, which residential heating oil suppliers routinely handle. Therefore, the Proposed Action would not result in significant effects on heating and cooling systems.

Solid Waste Management

The Proposed Action may result in short-term adverse effects from the generation of C&D debris. However, the volume of solid waste generated is not expected to exceed the capacity of receiving waste facilities. USCG would prepare and implement a Waste Management Plan to guide the management of solid waste generated by the project. Following construction, solid waste generation at the station would remain largely unchanged, although a minor long-term increase from additional facility personnel following construction is anticipated. The small increase in household and operational waste associated with the Proposed Action would be minor relative to CBJ's municipal solid waste management and landfill capacities. Therefore, the Proposed Action would not result in significant adverse effects on solid waste management systems.

5.10.3.2 No Action Alternative

Under the No Action Alternative, USCG would not homeport an additional cutter in Juneau and there would be no demolition of the existing wharf, construction of a new wharf and pier, or site utility upgrades. No C&D debris would be generated and USCG would continue to operate under baseline conditions. Existing in-water infrastructure would continue to deteriorate. The existing infrastructure and utilities would be unable to accommodate the *Storis*, placing additional demand on parking and traffic.

5.10.4 Reasonably Foreseeable Effects

Pier construction west of Station Juneau as part of HTC's proposed Áak'w Landing project may increase utility loads in the ROI. In combination with the Proposed Action, this would result in a minor increase in electricity use, representing a potential long-term adverse effect on local demand. However, the Sweetheart Lake Hydroelectric Project, currently under development, would likely increase Juneau's electrical generation capacity by 25% (Juneau Hydropower 2026), with construction anticipated to begin by September 2026 and conclude within 3 years (KTOO 2025c). This project would have a long-term beneficial effect on regional electric supply and would offset the increase in demand. Therefore, the combined effects of these actions would not be significant.

6.0 ENVIRONMENTAL COMMITMENTS

The Proposed Action would adhere to all federal, state, and local laws, permit requirements, and stipulations that may arise during the permitting process. Implementation of the Proposed Action would include measures to avoid, minimize, and mitigate potential environmental effects through standard operating procedures and BMPs.

Table 6.1-1 presents the environmental commitments required for the Proposed Action as identified during coordination and consultation with various regulatory agencies.

Table 6.1-1 Environmental Commitments

RESOURCE AREA	COMMITMENT
Land Use	Any potential waterway congestion while USCG, fishing, or tourism vessels are transiting Gastineau Channel would be mitigated through safety measures and communications protocols such as sequencing arrivals and departures and ensuring that anchorage remains empty during maneuvers. USCG would coordinate with CBJ and ADNR Division of Mining, Land, and Water, as appropriate, to obtain any regulatory approvals and/or property rights required for activities on lands owned by these entities. Any new housing development associated with the Proposed Action would be subject to applicable local land use, permitting, and zoning requirements and would be evaluated in an SEA, as appropriate.
Noise	USCG would implement noise-reducing measures such as fitting equipment mufflers, installing acoustic barriers, selecting low-noise equipment where possible, and limiting hours of operation to reduce noise levels and minimize disruption caused by exposure to project-related noise.
AQ	USCG would implement BMPs to minimize AQ effects from the Proposed Action, including keeping construction equipment in good working order and serviced according to a maintenance program to sustain peak operating efficiency, potentially reducing energy consumption and associated emissions. To reduce fugitive dust emissions, USCG may employ minimization measures such as regular application of water (or an approved chemical dust suppressant) or placing limitations on vehicle and equipment speeds, particularly on unpaved surfaces. If the addition of emergency generators would trigger the 40-tpy NO_x threshold, USCG would obtain a PAEL from ADEC.
Water Resources	Depending on the extent of anticipated area of impact on jurisdictional wetlands and waters, in accordance with CWA Section 404, USCG would either verify coverage under a Nationwide Permit or obtain an Individual Permit. The appropriate permit would be obtained from USACE during a future phase of project development, once final design details are available. The USACE permit would include any required mitigation measures to avoid, minimize, or compensate for adverse environmental effects associated with discharges to jurisdictional wetlands and waters, and construction would be conducted in accordance with all applicable permit terms and conditions. USCG would obtain an RHA Section 10 permit from USACE for construction within a navigable water of the U.S. Stabilization of slopes and cleared areas would prevent offsite sediment transport after construction concludes.

Table 6.1-1 Environmental Commitments

RESOURCE AREA	COMMITMENT
Hazardous Materials/ Waste	To minimize the potential for accidental releases, contractors would be required to adhere to the Station Juneau IERPP for management and storage of hazardous materials. USCG would conduct a hazardous materials building survey prior to demolition to identify hazardous waste that would be generated by the Proposed Action. USCG would use BMPs to prevent introduction of creosote into the environment, should pilings and wharf materials be found to contain creosote during the building survey; BMPs may include: keeping extraction equipment above the water line when removing pilings; not twisting, bending, or otherwise deforming pilings when breaking; and/or constructing a containment basin for storing removed pilings prior to containerizing for final disposal.
Biological Resources	USCG would complete an EFH Assessment in consultation with NMFS and implement project-specific BMPs and conservation recommendations, if applicable, to minimize effects on EFH-protected fish and their habitats. USCG would adhere to the stipulations of the IHA under the MMPA, including mitigation, monitoring, and reporting requirements. USCG would complete formal ESA Section 7 consultation with NMFS and implement conservation recommendations, reasonable and prudent measures, and mitigation measures, as applicable, to minimize the risk of injury or harassment to affected species. USCG would implement project-specific BMPs and follow NMFS-recommended in-water work windows, when practicable, to avoid or minimize effects on federally managed fish species and EFH. If in-water work between 15 April and 1 June (during salmon smolt outmigration periods) were necessary to meet the construction schedule and support mission readiness, USCG would implement additional mitigation measures as practicable, such as using attenuation devices (e.g., bubble curtains, pile caps) during impact pile driving and following best practices for pile removal and dredging to minimize sediment plumes during wharf demolition and dredging. To minimize adverse effects from approaching vessel noise, vessels supporting the Proposed Action would operate at speeds of 13 knots or less. Vessel speeds in the project area would be 10 knots or less. USCG would dispose of dredged material at a USACE-approved offshore site under a CWA Section 404 permit to minimize impacts on fish and benthic invertebrates. If DTH drilling generates slurry or cuttings that are discharged to surface waters, USCG would obtain authorization under CWA Section 402. USCG would implement mitigation measures throughout construction, including standard in-water work BMPs, Protected Species Observer monitoring and shutdown protocols, soft-start procedures for pile driving, vessel speed restrictions, and adherence to avoidance measures for protected species. If any small vegetated areas or large trees suitable for nesting birds, including eagles, were encountered during the USFWS-recommended nesting avoidance window of 1 March to 5 September in Southeast Alaska, USCG would perform a nest survey prior to initiating any vegetation clearing/ground-disturbing activities. USCG would follow USFWS guidance to avoid disturbing eagles, including no vegetation clearing within 330 feet of nests and no construction within 660 feet from 1 March to 1 June. From 1 June to 31 August, construction must remain 660 feet away from active nests until juveniles have fledged. Nest trees must remain undisturbed at all times. Construction workers would follow the USFWS nationwide avoidance and minimization measures for birds established in USFWS 2024. If it is determined that take of species protected under the MBTA and/or BGEPA may be necessary during project implementation, USCG would coordinate with USFWS to obtain a federal permit and would employ any additional BMPs recommended by USFWS as necessary to avoid adverse effects on bird species.

Table 6.1-1 Environmental Commitments

RESOURCE AREA	COMMITMENT
Cultural Resources	All phases of the project would be implemented in accordance with Section 106 of the NHPA, in consultation with the SHPO and applicable consulting parties.
Socioeconomics	USCG would evaluate housing solutions, including new construction opportunities, to alleviate the housing shortage and minimize adverse effects that may result from a large population increase.
Infrastructure/Utilities	USCG would conduct construction in accordance with the ADEC CGP for stormwater management. USCG would develop a project SWPPP and implement BMPs to manage sediment accumulation or equipment runoff. If a temporary lane closure is necessary for Egan Drive, USCG would obtain a lane closure permit. USCG would manage generated waste in accordance with a Waste Management Plan.

Notes:

For definitions, refer to Acronyms and Abbreviations list.

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APPENDIX A
INTERAGENCY/INTERGOVERNMENTAL COORDINATION
AND PUBLIC PARTICIPATION
[TO BE INCLUDED IN FINAL]

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PERSONS AND AGENCIES/ORGANIZATIONS CONSULTED

Table A-1 Persons and Agencies/Organizations Consulted/Coordinated With

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Notes:

For definitions, refer to Acronyms and Abbreviations list.

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APPENDIX B
BIOLOGICAL ASSESSMENT

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Biological Assessment

**USCG Major Cutters Homeporting: Facility
Replacement and Pier Construction**

Juneau, Alaska

Final Report

May 2026

Prepared for

Brice Solutions

Anchorage, Alaska

and

U.S. Coast Guard

Civil Engineering Unit Juneau

Contract: 70Z08723DJUNE0001

Prepared by

61 North Environmental

Anchorage, Alaska



U.S. Coast Guard
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Appendix A – Level B Harassment and Shutdown Zone Figures

Appendix B – Essential Fish Habitat Assessment

Acronyms and Abbreviations

§	part
±	plus or minus
%	percent
°	degrees
°C	degrees Celsius
°F	degrees Fahrenheit
>	greater than
≤	less than or equal to
μPa	micro-Pascal
μPa ² s	micro-Pascal squared per second
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
BA	Biological Assessment
CFR	Code of Federal Regulations
dB	decibels
dB peak	instantaneous peak dB level
dB re 1 μPa	decibel referenced to 1 micro-Pascal
DIP	demographically independent population
DIPAC	Douglas Island Pink and Chum, Inc.
DPS	distinct population segment
DTH	down-the-hole (drilling)
eDPS	Eastern Stock (Steller sea lions)
EFH	Essential Fish Habitat
ESA	Endangered Species Act of 1973, as amended
FR	Federal Register
GOA	Gulf of Alaska
HT	harassment threshold
Hz	hertz
IHA	Incidental Harassment Authorization
IWW	in-water work window
kHz	kilohertz
MMPA	Marine Mammal Protection Act
N/A	not applicable
n.d.	no date
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PSO	protected species observer
PTS	permanent threshold shift
re	referenced to
R _{MAX}	maximum net productivity rate
rms	root-mean-square
SEL _{cum}	cumulative sound exposure level

SEL _{ss}	single-strike sound exposure level
SPL	sound pressure level
SSL	sound source level
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
wDPS	Western Stock (Steller sea lions)

1 Introduction

The U.S. Coast Guard (USCG) manages the country's cutter fleet to respond to safety threats, secure access, and defend U.S. interests in the polar regions. The USCG is proposing to homeport major cutters at USCG Station Juneau, Alaska (Figure 1). The current upland facilities and aging timber wharf at USCG Station Juneau are insufficient for berthing major cutters for extended durations. To support the homeporting action, the USCG proposes to decommission the existing wharf, construct a new wharf, trestle, floating pier, and covered mooring for smaller vessels, and upgrade existing facilities both in-water and onshore (Figure 2). The purpose of this project is to provide the necessary waterfront infrastructure to homeport two major cutters simultaneously. This project will also recapitalize the legacy timber wharf, enabling it to host visiting ships, including seagoing and coastal buoy tenders, as well as National Oceanic and Atmospheric Administration (NOAA) research ships.

The USCG anticipates that the in-water demolition and installation activities is planned to occur over two construction seasons. Decommissioning of the legacy timber wharf will commence in 2027, immediately followed by in-water construction of the new facilities through late 2028 or early 2029.

The project is located in Juneau Harbor, adjacent to downtown Juneau, Alaska. The harbor is situated within Gastineau Channel, which is bordered to the southwest by Douglas Island and the mainland coast to the northwest. Douglas Island is part of the Alexander Archipelago in Southeast Alaska. The proposed expansion to the existing facility is within a developed area with substantial industrial, commercial, recreational, and governmental maritime facilities nearby.

The inland waterways of Southeast Alaska provide habitat for several species of marine mammals, including humpback whales (*Megaptera novaeangliae*) and Steller sea lions (*Eumetopias jubatus*). Juneau residents and researchers have documented the presence of these species within Gastineau Channel and nearby waters such as Stephens Passage and Taku Inlet. The Mexico distinct population segment (DPS) of humpback whales, currently listed as threatened under the Endangered Species Act of 1973, as amended (ESA), and the endangered Western DPS (wDPS) of Steller sea lions have been observed in the waters of Southeast Alaska. Each of these DPSs comprises only a small proportion of the total regional populations (less than 2.5 percent [%]); however, they could occur within the project's action area for marine mammals (region of influence for marine mammals). In-water pile driving and removal to construct the new facilities may affect these species. The project will not affect federally-designated critical habitat for the wDPS of Steller sea lions or the Mexico DPS of humpback whales.

Projects that have a federal nexus under Section 7 of the ESA, such as federal funding, permits, or authorization, are obligated to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) if a federal action may affect or jeopardize ESA-listed species or their habitat. The USCG will request authorization from the U.S. Army Corps of Engineers (USACE) under Section 10 of the Rivers and Harbors Act of 1899 for impacts to navigable waters, as well as a Clean Water Act Section 404 discharge authorization. It will also seek authorization from the USFWS and NMFS for take of marine mammals incidental to the construction activities under the Marine Mammal Protection Act (MMPA). Although multiple federal agencies have roles in the action, the USCG is the lead action agency for the project.

The USCG has determined that the project will have "no effect" on ESA-listed species or habitats managed by USFWS. For ESA-listed species managed by NMFS, the USCG has concluded that the project "may affect, and is likely to adversely affect" the wDPS of Steller sea lions and the Mexico DPS of humpback whales. The USCG has also determined that the project will not result in the destruction or adverse modification of any federally-designated critical habitat. In addition to these determinizations, the USCG has concluded that the project will have no effect on other federally-listed species that may be present in the region, but are unlikely to occur within the action area (Table 1). This assessment provides project details and an analysis of the potential effects on the wDPS of Steller sea lions and the Mexico DPS of humpback whales. The purpose of this assessment is to fulfill the requirements of formal consultation under Section 7 of the ESA.

Table 1. ESA-Listed Species that Could Occur in the Action Area, Status, Effect Determination, and Critical Habitat Determination

SPECIES	MANAGEMENT UNIT/STOCK	STATUS	DETERMINATION OF EFFECT	LIKELY TO AFFECT CRITICAL HABITAT?
Short-tailed albatross (<i>Phoebastria [=Diomedea] albatrus</i>)	N/A	Endangered	No Effect	No ¹
Steller sea lion (<i>Eumetopias jubatus</i>)	Western DPS	Endangered	Likely to Adversely Affect	No ²
North Pacific right whale (<i>Eubalaena japonica</i>)	Eastern North Pacific Stock	Endangered	No Effect	No ²
Fin whale (<i>Balaenoptera physalus</i>)	Northeast Pacific Stock	Endangered	No Effect	No ¹
Humpback whale (<i>Megaptera novaeangliae</i>)	Western North Pacific DPS	Endangered	No Effect	No ²
Humpback whale (<i>Megaptera novaeangliae</i>)	Mexico DPS	Threatened	Likely to Adversely Affect	No ²
Sperm whale (<i>Physeter macrocephalus</i>)	Alaska North Pacific Stock	Endangered	No Effect	No ²
Killer whale (<i>Orcinus orca</i>)	Eastern North Pacific Southern Resident Stock	Endangered	No Effect	No ²

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Source: 81 FR 62259; 89 FR 2584; Carretta et al. 2024; NOAA Fisheries 2025a-2025c, 2026a-2026b; USFWS n.d.

¹ Critical habitat has not been designated for this species.

² Critical habitat does not occur within the action area.

1.1 SPECIES WITH NO EFFECT BY THE PROPOSED PROJECT

The endangered short-tailed albatross (*Phoebastria [=Diomedea] albatrus*) is unlikely to occur near the action area. The short-tailed albatross breeds on Hawaiian and Japanese islands and forages at sea on the wing primarily along the continental shelf margin, with the highest concentrations in the Aleutians, the Bering Sea, and the Gulf of Alaska (GOA), and with sightings of individuals all along the west coast of North America. Short-tailed albatrosses are occasionally sighted off the coast of Southeast Alaska, but more than 24 kilometers (15 miles) off the outer coast. They only return to land for breeding. Because they primarily forage along the continental shelf margin and concentrations are low in Southeast Alaska, it is unlikely that they will occur in the action area (Gastineau Channel; USCG 2021; USFWS 2020; USFWS n.d.). The proposed activities are anticipated to have no effect on short-tailed albatrosses, and there is no further analysis in this Biological Assessment (BA).

The ranges of the North Pacific right whale (*Eubalaena japonica*), fin whale (*Balaenoptera physalus*), and sperm whale (*Physeter macrocephalus*) do not overlap with the action area (NOAA Fisheries 2026a–c; Young et al. 2024). All three species are typically found along the outer coast and are not regularly seen in the Inside Passage waters of Southeast Alaska or the action area. These three species are unlikely to be sighted within Gastineau Channel; therefore, the project is expected to have no effect on the stocks. If any of these species are sighted by protected species observers (PSOs) within an applicable Level B or shutdown zone during in-water work, the PSOs will initiate a shutdown of the construction activity to avoid harassment. The construction work will not resume until the species is sighted leaving the applicable zone, or until it has not been resighted for at least 30 minutes.

North Pacific right whales (Eastern North Pacific Stock) are primarily found in coastal or shelf waters, sometimes travel into deeper waters, but none have been observed in the Inside Passage (Dahlheim et al. 2009; Young et al. 2024). The proposed activities are predicted to have no effect on North Pacific right whales, and there is no further analysis in this BA.

Fin whales were once common in the Inside Passage before commercial whaling, but have not returned to these inshore waters (Clark 2008). They are normally found in deep, offshore waters and travel away from the coast (NOAA Fisheries 2026a; Young et al. 2024). They are unlikely to be found in the Inside Passage, and there have been no reported collisions with vessels (Neilson et al. 2012). During Southeast Alaska cetacean surveys, fin whales were observed only occasionally, and only in areas near the open ocean in southern Southeast Alaska (Dahlheim et al. 2009). The proposed activities are predicted to have no effect on fin whales, and there is no further analysis in this BA.

Sperm whales have increased in the GOA in the last few decades and particularly near the Sitka sablefish fishing grounds, where they have learned to steal fish from longline fishing boats (Alaska Department of Fish and Game [ADF&G] n.d.-a; Hill et al. 1999). In 2018 and 2019, three individual sperm whales were observed in the northern Inside Passage (Chatham Strait and Lynn Canal), and one sperm whale washed up dead (likely due to a ship strike) near Berners Bay, north of Juneau, in 2019 (ADF&G n.d.-a; NOAA Fisheries 2019). However, sperm whales typically dive deep to find their prey and are found on the continental shelf, rarely in areas shallower than 274–366 meters (899–1,201 feet), so they are not expected to occur in the action area. The proposed activities are predicted to have no effect on sperm whales, and there is no further analysis in this BA.

Three DPSs of humpback whales occur in Alaskan waters. DPS names reflect breeding areas: the Western North Pacific DPS (endangered), the Mexico DPS (threatened), and the Hawai'i DPS (not listed; 81 Federal Register [FR] 62259). However, observers cannot visually distinguish DPSs without using photo-identification techniques. In Southeast Alaska, 97.6% of humpback whales came from the Hawai'i DPS, 2.4% came from the Mexico DPS, and 0% came from the Western North Pacific DPS (Wade 2021). Since no endangered Western North Pacific DPS humpbacks have occurred, nor do projections indicate their occurrence in the action area (Wade 2021; USCG 2021), the proposed activities are predicted to have no effect on the Western North Pacific DPS humpback whales, and there is no further analysis of them in this BA.

Killer whales (*Orcinus orca*) are grouped into three ecotypes: resident, transient, and offshore (Carretta et al. 2024; NOAA Fisheries 2025a). Eight stocks of killer whales occur within the Pacific U.S. Exclusive Economic Zone (Young et al. 2024). In the Eastern North Pacific, the Southern Resident Stock of killer whales is endangered and not expected to occur in the action area, but they have occurred in Southeast Alaska at least once (Chatham Strait; Carretta et al. 2024; Dahlheim et al. 2009). The proposed activities are predicted to have no effect on the Eastern North Pacific Southern Resident Stock, and there is no further analysis of them in this BA.

2 Project Description

2.1 LOCATION

USCG Station Juneau is located at the northwest end of Gastineau Channel, in downtown Juneau, Alaska (at north 58.298191 degrees [°], west 134.412818°). Figure 1 displays the project location and vicinity. Figure 2 shows the project action area, which includes the Juneau Harbor and a portion of Gastineau Channel. Additional figures depicting marine mammal harassment and shutdown zones relative to the project location are provided in Appendix A.

The proposed expansion to the existing facility is located in a developed area with adjacent industrial, commercial, recreational, and governmental maritime operations. The City of Juneau operates several nearby docks and harbor facilities for recreational vessels, cruise ships, and tourism operations. Commercial docks and cargo facilities are prevalent in the area of Gastineau Channel near USCG Station Juneau.

The project will upgrade the waterfront infrastructure to homeport up to two major USCG cutters in Juneau by constructing a homeport pier with two berths, capable of simultaneously hosting the cutters. This project will also recapitalize the legacy timber wharf, enabling it to host visiting ships. It also includes the construction of covered moorings at USCG Station Juneau's waterfront, in support of its small vessels.

In 2024, USCG Station Juneau received transfer of an adjacent legacy facility operated by NOAA, including waterfront infrastructure, utilities, support buildings, and 2.39 acres of land. Combining the legacy USCG and NOAA wharfs, the contiguous timber wharf is 655 feet (200 meters) in length (plus 50 feet [15 meters] to one mooring dolphin to the west). This legacy timber wharf is not viable for hosting or homeporting major cutters due to its poor condition and insufficient water depth.

The existing timber wharf traverses the intertidal zone to a water depth of approximately 30 feet (9 meters) at the face. The USCG will construct the new wharf on approximately the same footprint and in the same location, but will modernize the new wharf to include full shore-tie utilities, fendering, and mooring hardware to support a vessel up to 225 feet (69 meters) in length. The new floating pier will be 560 feet (170 meters) long and 80 feet (24 meters) wide. The floating pier, trestle, and gangway will extend approximately 700 feet (215 meters) offshore from the high-water mark and 640 feet (195 meters) from the face of the new wharf. The USCG design specifications require the floating pier to accommodate major cutters up to 460 feet (140 meters) in length. The existing water depth along the proposed floating pier ranges from 50 to 100 feet (15 to 30 meters).

Gastineau Channel is approximately 19 miles (31 kilometers) long and separates Douglas Island from the mainland. The channel is navigable by large ships from its entrance near Stephens Passage and Taku Inlet to the bridge connecting Douglas Island and the mainland near downtown Juneau. Smaller vessels can navigate to the northwest of the bridge, but the channel becomes narrow and extremely shallow along the north end of Douglas Island. Several anadromous fish-bearing streams flow into the channel; however, the most productive streams are northwest of the Douglas Island bridge and outside of the project action area.

There are no designated critical habitat areas for ESA-listed marine mammals within Gastineau Channel. However, the channel is designated as Essential Fish Habitat (EFH) for 16 fish species, as described in the EFH Assessment (Appendix B). ADF&G's Anadromous Waters Catalog identifies several anadromous fish-bearing streams within or adjacent to the action area, including Kowee Creek, Gold Creek, Grant Creek, Lawson Creek, Snowslide Creek, Sheep Creek, Bullion Creek, and Ready Bullion Creek (ADF&G n.d.-b).



Figure 1. Proposed USCG Homeporting of Major Cutters Project Location and Vicinity

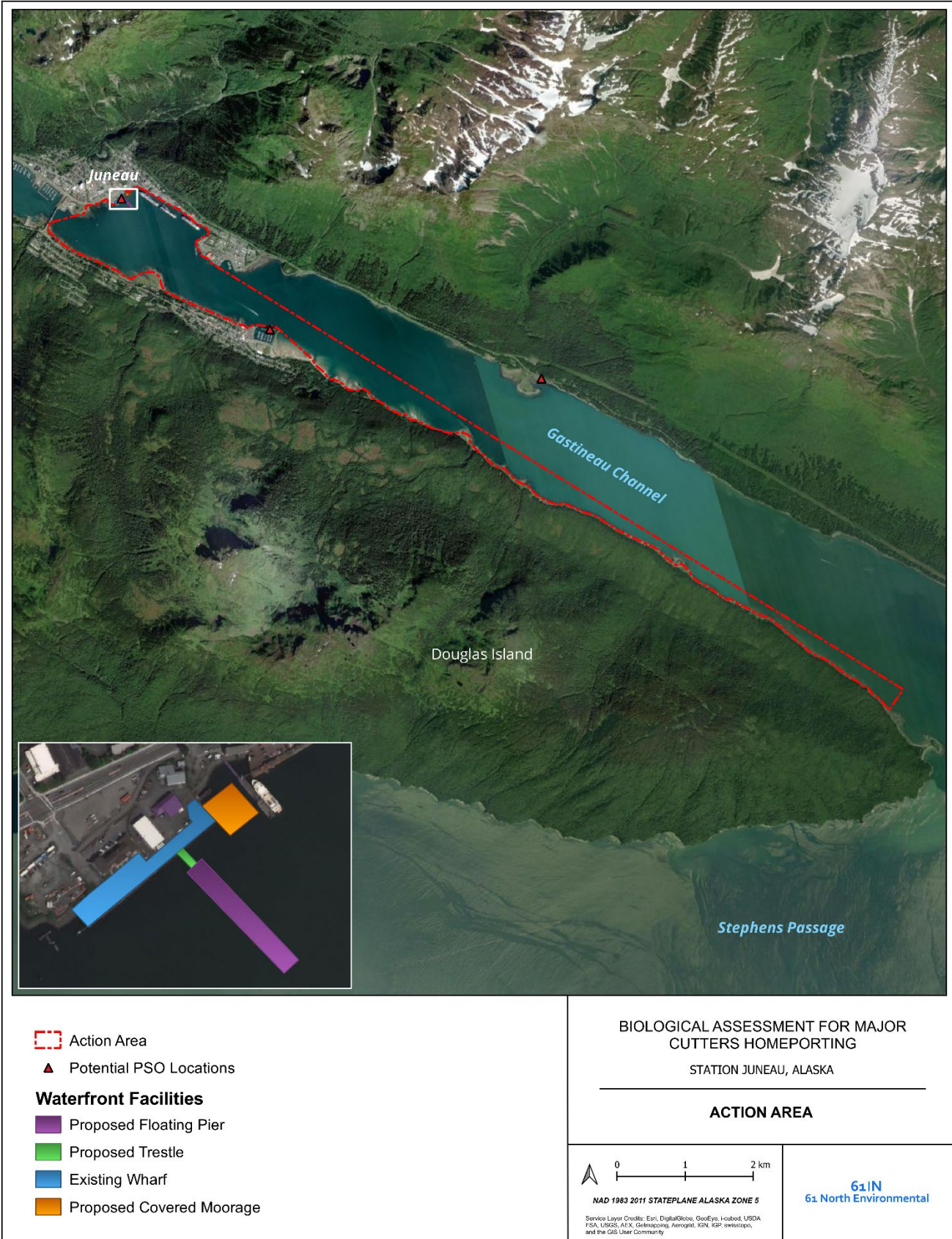


Figure 2. Project Components and Action Area

2.2 PROJECT ACTION AREA

Under the ESA, the action area is defined as the region directly or indirectly affected by a federal action and is not limited to the immediate vicinity of the activity. Instead, the geographic extent of the project's environmental effects determines the action area, to the point at which impacts are no longer measurable. Underwater sound from pile installation and removal activities is audible to marine mammals at substantial distances. Underwater sounds above ambient noise levels can cause behavioral disturbance and injury in marine mammals. For underwater sound, NMFS defines a behavioral harassment threshold of 120 decibels (dB; NOAA Fisheries 2023a). Pile installation may exceed this threshold up to 13,594 meters from the project, representing the greatest geographical extent of impact. The geography of Juneau Harbor constrains underwater sound, limiting the width of the ensonified area to approximately 200–650 meters along the shoreline beyond the harbor. The ensonified zone delineates the extent of the action area (Figure 2). Section 5.2 describes underwater noise propagation and the effects on ESA-listed marine mammal species.

The areas of the marine environment that the project directly affects include the seafloor at the site of timber pile extraction, dredging and rock placement in the nearshore area, and the footprint of the installed permanent piles. It also includes the footprints of the derrick barges, the vessels that the contractor will use in construction, and the anchor spreads or spuds that position and hold the derrick barges in place. Although utility installation and wharf demolition and construction will disturb upland areas, no terrestrial ESA-listed species are expected in the industrial setting.

Other direct and indirect effects, such as acute impacts on fish, may occur in proximity to impact pile driving. High-energy sound can rupture the swim bladders in fish and potentially affect forage species for marine mammals. Turbidity may increase during pile installation and extraction, dredging, and discharge of cuttings and spoils from down-the-hole (DTH) drilling, potentially affecting demersal fish and benthic species in the area. In-air sound from pile installation can also cause behavioral disturbances to phocids, pinnipeds, and sea otters. However, no suitable haulout locations are within the action area, and the in-air disturbance zones are smaller than the associated underwater Level B harassment zones. Sections 5.1 and 5.2 discuss these and other effects.

2.3 PROPOSED ACTION

The current upland facilities at USCG Station Juneau include a USCG building, a timber wharf, and a parking area. A 655-foot (200-meter) timber wharf, ranging between 55 feet (17 meters) and 120 feet (35 meters) in width, lies parallel to the shoreline, seaward of the USCG and NOAA buildings. The new facilities will support the homeporting of major cutters for at least a 50-year lifespan, with upgrades to seismic-structural stability, fire and safety life safety features, and mechanical and electrical utilities. These improvements will accommodate homeporting up to two cutters and hosting one visiting vessel. Additional features include new lighting, site access control, and safety and security features. The project phases include:

- Upgrading site-wide utilities at USCG Station Juneau as required to support current buildings, current station boat complement, future building expansion, and berthing of a cumulative total of three cutters simultaneously.
- Demolishing the existing timber wharf, pile, utilities, and appurtenances.
- Repairing and rehabilitating the existing concrete retaining wall, addressing voids and undermining caused by tide-driven erosion beneath the existing timber wharf.
- Integration of the repaired wall with the new wharf, using appropriate supporting elements to achieve the required wharf depth and operational capacity.
- Constructing a new wharf to replace the timber wharf, including a modernized system capable of supporting vessel mooring, utilities, and USCG operational loading.

- Constructing a new floating pier up to 80 feet (24 meters) wide by 560 feet (171 meters) long for vessel docking. The design-build contractor will engineer the pier to withstand the demanding conditions of Gastineau Channel, including major tidal fluctuations, seismic events, and strong Taku wind events.
- Constructing a new access trestle/gangway supporting vehicle, equipment, and personnel access, including utilities distribution out to the new floating pier.
- Constructing a new covered mooring for two 45-foot vessels and one 29-foot vessel.
- Dredging along the face of the new wharf to deepen the available berth.
- Constructing crew housing at an as-of-yet undetermined location in the City of Juneau.

This assessment analyzes the impacts on ESA-listed marine mammal species from the demolition and reconstruction of the wharf; construction of the access trestle, gangway, floating pier, and covered mooring for the smaller vessels; and dredging. The concrete retaining wall is within the upper intertidal zone. The contractor will likely make repairs at lower tides when the shoreline is accessible.

2.3.1 CONSTRUCTION SEQUENCING AND SCHEDULING

The project team has not selected the design-build construction contractor, and the construction means, methods, sequencing, and duration will be refined once the contractor completes the final work plans. The in-water construction duration, pile size, number of piles, and pile installation and removal techniques described in this assessment are based on preliminary engineering estimates to meet the project design specifications. Individual pile installation durations and estimated strike counts are based on similar projects in Alaska. The estimated hours and days for each task serve as assessment tools and are not intended or proposed as fixed limits. Consequently, actual construction durations, pile size, specific pile impact strikes, and activity sequences may vary depending on construction conditions, environmental factors, and operational constraints. To assess the potential impacts of the project on ESA-listed species, this analysis assumes a reasonable upper range for the pile sizes, pile counts, durations, and occurrence of installation techniques with greater impact (e.g., DTH drilling). The USCG does not anticipate significant changes to the project's potential effects on marine mammals. If major modifications are necessary, the USCG will coordinate with NMFS.

The USCG anticipates the in-water work that may affect listed species will require two full or three partial construction seasons to complete. The project team does not anticipate work during winter conditions in Juneau. Construction seasons could begin as early as mid-March and extend until mid-November, depending on the weather and in-water work windows (IWWs) described below. The current work schedule plans for approximately 12 months of in-water work, occurring over an 18- to 24-month period, concluding in late 2028 or the spring of 2029. The contractor is likely to complete the phases of the project in the following sequence:

1. Year 1 (June 2027 – May 2028):
 - a. Summer 2027 – Demolition of the existing timber wharf and mooring dolphin – 75 days
2. Year 2 (June 2028 – May 2029):
 - a. June 2027 to Spring 2028 – Reconstruction of the wharf in the same layout – 180 days
 - b. Summer 2028 – Construction of the access trestle – 35 days
 - c. Summer 2028 – Construction of the floating pier – 65 days
 - d. Summer or Fall 2028, or Spring 2029 – Construction of the covered mooring – 20 days

The timing and duration of dredging (if required) are yet to be determined. Note that some portions of the work will likely overlap. For example, concrete formwork, precast concrete cap and panel installation, and concrete pours for the platform decking on the wharf and access trestle may occur while other in-water pile driving takes place. Also note that the given durations apply to the in-water portions of the work that may affect ESA-listed species. Other topside and upland construction may occur before, during, or after the durations identified above.

The USCG will follow NMFS recommendations for IWWs to avoid or minimize impacts on sensitive federally managed fish species and EFH, such as:

1. Minimizing the number of piles installed from 15 April to 1 June of any year (to the extent practicable) and avoiding the use of an impact hammer from 15 April to 1 June of any year.
2. Avoiding demolishing the existing timber wharf or dredging from 15 April to 1 June of any year, which may introduce sediment and contamination into the water column.

The EFH Assessment is included as Appendix B. The construction contractor will only conduct in-water impact pile driving and DTH drilling (i.e., activities with larger Level A harassment and shutdown zones) during daylight hours, when PSOs can observe the applicable zones. The contractor may conduct vibratory pile driving at night if the use of night-vision or thermal-imaging devices allows PSOs to monitor the applicable shutdown zones.

The contractor may conduct upland and over-water work at night using light plants and other illumination. However, during all over-water work, the construction crew will monitor the marine waters and cease or shut down any over-water activity if marine mammals were present within 10 meters (33 feet).

2.3.2 CONSTRUCTION METHODS AND MATERIALS

The design-build contractor will determine the final construction means and methods. Wharf decommissioning is expected to include vibratory extraction and in-water cutting of timber piles. The new wharf may be a pile-supported structure, or a bulkhead-style structure constructed using sheet piles, backfilled with compactable material. Pile types, quantities, and pile dimensions for each construction phase are not finalized; therefore, this analysis considers a range of each. Additionally, geotechnical investigations are not complete; therefore, this assessment includes a variety of foreseeable installation and removal techniques.

The contractor will begin work by decommissioning the existing timber wharf. After the contractor removes the timber decking and bracing of the wharf, they will extract the timber piles. The existing wharf consists of approximately 500 timber piles below the decking. The contractor may extract the piles by dead pulling (i.e., directly pulling the pile out of the seabed with a crane), removal with a vibratory hammer, or cutting at the mudline with a hydraulic chainsaw, diamond wire saw, or similar cutting device. The contractor may use one or more, or all, of the methods described, depending on the circumstances and location of each pile. Some of the piles may be “in the dry” above the water level at the time of removal. The contractor may use heavy equipment, such as excavators, loaders, and cranes, from upland locations to access the nearshore components of the wharf decking, bracing, and piles. They may also use barge-mounted excavators and derrick barges to access and remove components in the intertidal zone and along the face of the wharf.

After decommissioning, the contractor will repair damage from tidal scouring of the concrete retaining wall and prepare it to support the abutment to the new wharf and tie-ins to the new piling. To the extent feasible, this work will take place at lower tides, when the concrete wall and equipment are not exposed to water. Seawall reconstruction may involve vibratory and impact-driven sheet pile installation in water and above the tideline.

Under a sheet pile bulkhead approach, wharf construction will include installing up to 1,500 interlocking sheet piles (24-inch), up to 16 steel pipe fender piles (less than or equal to $\leq$ 24-inch), and installing and removing up to 50 temporary template piles (24- or 30-inch). Under a pile-supported wharf alternative, construction will include installing up to 140 steel or 200 concrete piles, each up to 24 inches in diameter. The access trestle will be pile-supported, and guide piles will position and restrain the floating pier. The access trestle may require up to 24 steel pipe piles ($\leq$ 36-inch), the floating pier may require up to 24 steel pipe piles ($\leq$ 48-inch), and the covered mooring may require up to 24 steel pipe piles ($\leq$ 24-inch). The wharf, trestle, and floating pier phases may require additional temporary piles (24- or 30-inch). The contractor may use a combination of vibratory driving or extraction, impact driving, and DTH drilling to install and remove piles.

Wharf and pier construction will require tugs, derrick barges, materials barges, and work skiffs. Although the number and type are currently unknown, up to seven vessels may be operational during the project. The engineering basis for this assessment includes dredging along the wharf and the covered mooring to achieve the desired water depth for the planned vessels. Additionally, the project may require in-water placement of rock and fill to protect exposed shorelines from wave and current action.

At the time of this assessment, geotechnical investigations, seismic, and coastal studies (i.e., wind, wave, and currents) remain incomplete, and the final design specifications of the wharf, trestle, and floating pier are unknown. Typically, larger pile diameters result in larger Level A and Level B harassment zones, but designs with larger piles typically require fewer piles to achieve the same load specifications. A greater number of piles (i.e., installation events) and a longer construction duration can result in more instances of harassment of ESA-listed species in the area. Installation techniques such as impact and vibratory pile driving and DTH drilling have varied zones of ensonification, which influence the estimated number of takes. The continuous noise of DTH drilling and the strike rate of hammer drills can result in relatively large harassment zones compared with other installation methods. This assessment assumes the upper limits of the potential design criteria to estimate the number and size of piles and the installation techniques, to evaluate the project's maximum potential impact.

For example, the bedrock elevations and sediment depths at the project site are currently unknown. Therefore, this assessment cannot determine whether any of the piles will require DTH drilling. However, when the Juneau Cruise Ship Docks (located approximately 250 meters [820 feet] to the east of USCG Station Juneau) were constructed in 2016 and 2017, construction crews used DTH drilling to create rock sockets in the bedrock for several of the piles (Somerville et al. 2017). Therefore, this assessment assumes that up to 50% of permanent piles will require DTH drilling if bedrock is present. In addition, this assessment assumes the largest expected harassment zones during the in-water pile work to ensure the impact is adequately characterized. However, the final project design may require fewer or smaller piles, less impactful installation techniques, and fewer days to complete than estimated in this analysis.

Using these estimates, Table 2 lists the pile numbers, pile sizes, installation methods, and estimated durations for each phase of the project.

Table 2. Pile Installation and Removal Estimates

Project Phase	WHARF DEMOLITION	NEW 655-FOOT WHARF					NEW 30- FOOT BY 140-FOOT ACCESS TRESTLE	NEW 80- FOOT BY 560-FOOT FLOATING PIER AND MOORING DOLPHINS	NEW COVERED SMALL BOAT FLOATING PIER	ADDITIONAL TEMPORARY PILES
		Sheet-Pile/ Bulkhead	Concrete Pile- Supported ¹	Steel Pipe Pile- Supported ¹	Fender Piles	Temporary Piles				
Pile Diameter and Type	12- to 16-inch timber	24-inch steel sheet	24-inch concrete	24-inch steel pipe	24-inch steel pipe	Up to 30- inch steel pipe	Up to 36- inch steel pipe	Up to 48- inch steel pipe	Up to 24- inch steel pipe	Up to 30- inch steel pipe
Number of Piles	500	1,500	200	140	16	50 installations, 50 removals	24	24	24	50 installations, 50 removals
Vibratory Pile Driving or Removal										
Maximum Quantity for Activity	500	1,500	200	140	16	100	24	24	30	100
Maximum Number of Piles Per Day	50	30	4	4	4	6	3	3	4	6
Vibratory Duration Per Pile (minutes)	10	15	60	60	60	30	60	75	60	30
Maximum Vibratory Duration Per Day (minutes)	500	450	240	240	240	180	180	225	240	180
Total Vibratory Duration (hours)	83	375	200	140	16	50	24	30	30	50
Number of Days Activity May Occur	75	120 ²			15	45	24	24	20	45
Impact Pile Driving										
Maximum Quantity for Activity	N/A	1,500	200	140	16	N/A	24	24	24	N/A
Maximum Number of Piles Per Day	N/A	12	4	4	4	N/A	4	3	4	N/A
Number of Strikes Per Pile	N/A	200	1,000	1,000	1,000	N/A	1,500	1,800	1,500	N/A
Impact Duration Per Pile (minutes)	N/A	15	45	45	45	N/A	60	60	45	N/A
Maximum Impact Duration Per Day (minutes)	N/A	180	180	180	180	N/A	240	180	180	N/A

Total Impact Duration (hours)	N/A	375	150	105	12	N/A	24	24	18	N/A
Number of Days Activity May Occur	N/A	120 ²			15	N/A	24	24	20	N/A
DTH Drilling (50% of Total Piles)										
Maximum Quantity for Activity	N/A	N/A	100	70	8	N/A	12	12	12	N/A
Maximum Number of Piles Per Day	N/A	N/A	2	2	2	N/A	2	2	2	N/A
Duration Per Pile (minutes)	N/A	N/A	120	120	120	N/A	150	180	120	N/A
Maximum Drilling Duration Per Day (minutes)	N/A	N/A	240	240	240	N/A	300	360	240	N/A
Total Drilling Duration (hours)	N/A	N/A	200	140	16	N/A	30	36	24	N/A
Number of Days Activity May Occur	N/A	N/A	100	70	8	N/A	12	12	12	N/A

Notes:

¹ A concrete or steel pipe pile-supported wharf are two additional potential configurations considered in this assessment.

² The USCG estimates that wharf construction will take approximately 180 days, with approximately 120 days allocated to either a sheet-pile bulkhead or pile-supported wharf, excluding fendering and temporary piles.

2.4 PROPOSED MITIGATION MEASURES

The USCG proposes the following mitigation measures to avoid and minimize potential impacts to wDPS Steller sea lions and Mexico DPS humpback whales, and other marine mammals in the action area, including:

General Mitigation Measures

1. The USCG will inform NMFS of impending in-water activities a minimum of one week prior to the onset of those activities (email information to akr.prd.records@noaa.gov).
2. The USCG will conduct briefings for construction supervisors and crews and the monitoring team prior to the start of all in-water pile installation and removal, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.
3. In-water work will occur at the lowest points of the tidal cycle when feasible.
4. Consistent with Alaska Statute 46.06.080, trash will be disposed of in accordance with state law. The USCG and contractors will ensure that all closed loops (e.g., packing straps, rings, bands, etc.) are cut prior to disposal. In addition, the project proponent will secure all ropes, nets, and other marine mammal entanglement hazards so they cannot enter marine waters.
5. If contaminated or hazardous materials spill or are released during construction, the contractor will stop all work in the vicinity of the contaminated site until the contractor contacts the Alaska Department of Environmental Conservation (ADEC) and the ADEC approves a corrective action plan and the contractor implements it.
6. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, and similar equipment will undergo regular checks for drips or leaks, and the contractor will maintain and store them properly to prevent spills.
7. The USCG will ensure the contractor will provide and maintain a spill cleanup kit on-site at all times in the event of a spill or if any oil products are observed in the water.

PSO Requirements

8. At least one PSO will have either prior experience as a PSO in Alaska or will have taken a NMFS-approved PSO or marine mammal observer training course.
9. PSO training will include:
 - a. field identification of marine mammals and marine mammal behavior;
 - b. ecological information on marine mammals and specifics on the ecology and management concerns of those marine mammals;
 - c. ESA and MMPA regulations;
 - d. proper equipment use;
 - e. methodologies in marine mammal observation and data recording, and proper reporting protocols; and
 - f. an overview of PSO roles and responsibilities.
10. PSOs will be individuals independent from the project proponent and must have no other assigned tasks during monitoring periods.
11. The USCG or its designated non-federal representative will provide resumes or qualifications of PSO candidates to the NMFS consultation biologist and akr.prd.records@noaa.gov for approval at least one week prior to in-water work.

12. PSOs will:

- a. collectively be able to observe the entirety of the shutdown zone effectively;
 - b. be able to identify marine mammals and accurately record the date, time, and species of all observed marine mammals in accordance with project protocols;
 - c. be able to identify listed marine mammals that may occur in the action area, at a distance equal to the outer edge of the applicable shutdown zone, and determine the marine mammal's location and distance from the sound source;
 - d. have the ability to effectively communicate orally, by radio, or in person with project personnel to provide real-time information on listed marine mammals;
 - e. possess a copy of mitigation measures, any applicable marine mammal authorizations, and the Marine Mammal Mitigation and Monitoring Plan; and
 - f. possess data forms.
13. PSOs will not scan for marine mammals for more than four hours without at least a one-hour break from monitoring duties between shifts. PSOs will not perform PSO duties for more than 12 hours in a 24-hour period.

PSO Procedures

14. PSOs will have the ability, authority, and obligation to order appropriate mitigation response, including shutdown, to avoid takes of listed marine mammals.
15. Between one and three PSOs will be on duty throughout the authorized activity, depending on the size of the Level B harassment zone. PSOs will establish monitoring locations as described in the Marine Mammal Mitigation and Monitoring Plan.
16. The PSO contractor will designate a lead observer or monitoring coordinator when a team of three or more PSOs is required.
17. For each in-water activity, PSOs will monitor all marine waters within the indicated shutdown zone radius for that activity.
18. PSOs will position themselves such that they will collectively be able to monitor the entirety of each activity's shutdown zone.
19. Prior to commencing any in-water pile installation or removal activity, PSOs will scan waters within the appropriate shutdown zone and confirm no listed marine mammals are within the shutdown zone for at least 30 minutes immediately prior to initiation of the in-water activity. If PSOs observe one or more listed marine mammals within the shutdown zone, the in-water activity will not begin until the listed marine mammal or mammals exit the shutdown zone of their own accord, or the shutdown zone has remained clear of listed marine mammals for 30 minutes immediately prior to the commencement of the activities.
20. The on-duty PSOs will continuously monitor the shutdown zone and adjacent waters during any in-water pile installation or removal activity.
21. In-water pile installation and removal activities will only take place:
 - a. when the entire shutdown zone and adjacent waters are visible (e.g., monitoring effectiveness is not reduced due to rain, fog, snow, haze, or other environmental/atmospheric conditions);
 - b. between civil dawn and civil dusk when shutdown zones are greater than 100 meters. When shutdown zones are less than or equal to 100 meters, the project may use artificial illumination or NMFS-approved night-vision devices; and
 - c. during conditions with a Beaufort Sea State of 4 or less.

22. If visibility degrades such that PSOs can no longer ensure that the shutdown zone remains devoid of listed marine mammals during any in-water pile installation or removal activities, the crew will stop activities until the entire shutdown zone is visible and the PSOs have indicated that the zone remains devoid of listed marine mammals for 30 minutes.
23. The PSOs will order ongoing in-water pile installation or removal activities to immediately cease if one or more listed marine mammals have entered, or appear likely to enter, the shutdown zone.
24. If the crew shuts down any in-water pile installation or removal activities for less than 30 minutes due to the presence of listed marine mammals in the shutdown zone, the activities may commence when the PSOs assure that listed marine mammals were observed exiting the shutdown zone. Otherwise, the activities may commence only after the PSO has assured that the listed marine mammals have not been seen in the shutdown zone for 30 minutes (for humpback whales) or 15 minutes (for Steller sea lions).
25. If a listed marine mammal is observed within a shutdown zone or is otherwise harassed, harmed, injured, or disturbed, the PSO will immediately report that occurrence to NMFS using the contact information specified in the NMFS authorizations.
26. If an ESA-listed species not included in this assessment, for which take is authorized, is observed within or approaching a Level A or Level B harassment zone, the PSOs will order ongoing in-water pile installation or removal activities to immediately cease.
27. Prior to commencing in-water pile installation or removal, or at watch changes, PSOs will establish a point of contact with the construction crew. The PSO will brief the point of contact on shutdown procedures if the PSO observes that listed marine mammals enter or are likely to enter the shutdown zone. If the point of contact goes "off shift" and delegates their duties, the point of contact must inform the PSO and brief the new point of contact.

Impact Pile Installation

28. If no listed marine mammals are observed within the applicable shutdown zone for 30 minutes immediately prior to pile installation, the contractor will implement soft-start procedures immediately prior to activities. Soft-start procedures require contractors to provide an initial set of strikes at no more than half the operational power, followed by a 30-second waiting period, then two subsequent reduced-power-strike sets. The contractor must implement a soft-start:
 - a. at the start of each day's impact pile installation;
 - b. any time pile installation has been shut down or delayed due to the presence of a listed marine mammal;
 - c. whenever pile installation has temporarily stopped (≤ 30 minutes) and PSO observation has also stopped; or
 - d. whenever pile installation has temporarily stopped for more than 30 minutes, and PSO observation has also stopped.
29. Following the soft-start procedure, operational impact pile installation may commence and continue provided the listed marine mammals remain absent from the shutdown zone.
30. Following a lapse of impact pile installation activities of more than 30 minutes, the PSO will authorize resumption of impact pile installation only after the PSO assures that listed species have not been present in the shutdown zone for at least 30 minutes immediately prior to resuming operations.

Vibratory Pile Installation and Removal

31. If no listed marine mammals are observed within the applicable shutdown zone (see Section 5.2.2) for 30 minutes immediately prior to pile removal or installation, vibratory pile removal or installation may

commence. This pre-pile removal or installation observation period will take place at the start of each day's vibratory pile removal or installation, each time pile removal or installation has been shut down or delayed due to the presence of a listed species, and following a cessation of pile driving for a period of 30 minutes or longer.

32. Following a lapse of vibratory pile removal or installation activities of more than 30 minutes, the PSO will authorize resumption of vibratory pile removal or installation only after the PSO assures that listed marine mammals have not been present in the shutdown zone for at least 30 minutes immediately prior to resumption of operations.

DTH Drilling

33. If no listed marine mammals are observed within the DTH pile driving shutdown zone for 30 minutes immediately prior to pile driving, the contractor will implement soft-start procedures immediately prior to activities. Soft-start requires contractors to activate the drilling equipment at no more than half its operational power for several seconds, followed by a 30-second wait, then two subsequent reduced-power start-ups. The contractor must implement a soft-start at the start of each day's DTH pile driving, any time pile driving has been shut down or delayed due to the presence of a listed species, and following cessation of pile driving for a period of 30 minutes or longer.
34. Following this soft-start procedure, operational pile driving may commence and continue provided that the listed marine mammals remain absent from the shutdown zone.
35. Following a lapse of pile driving activities of more than 30 minutes, the PSO will authorize resumption of pile driving only after the PSO assures that listed marine mammals have not been present in the shutdown zone for at least 30 minutes immediately prior to resuming operations.

Intertidal Fill, Shore Stabilization, and Concrete Wall Repair

36. Fill material will consist of rock fill that is free of fine sediments to the extent practicable or will come from on-site dredged material.
37. The contractor will obtain fill material from local sources or will ensure it is free of non-native marine and terrestrial vegetation species.
38. A PSO must be present whenever sheet piles are installed in water and will follow mitigation measures for impact and vibratory pile driving listed above.
39. Operators of heavy equipment (e.g., excavators, cranes) used to place rock or other shoreline protection substrate in-water will stop the activity (shut down) if any listed marine mammal approaches within 50 meters (162 feet).
40. If concrete wall repair activities take place in water, the construction crew will cease in-water activities if any listed marine mammal approaches within 50 meters (162 feet).

Project-Dedicated Vessels

41. Without compromising vessel and crew safety, vessel operators will:
 - a. maintain a watch for marine mammals at all times while underway;
 - b. stay at least 91 meters (300 feet) away from listed marine mammals, except that they will remain at least 460 meters (1,500 feet) away from endangered North Pacific right whales;
 - c. travel at less than 5 knots when within 274 meters (900 feet) of a whale;
 - d. avoid changes in direction and speed within 274 meters (900 feet) of a whale, unless doing so is necessary for maritime safety;

- e. not position vessel(s) in the path of a whale, and will not cut in front of a whale in a way or at a distance that causes the whale to change direction of travel or behavior (including breathing/surfacing pattern);
 - f. reduce vessel speed to 10 knots or less when weather conditions reduce visibility to 1.6 kilometers (1 mile) or less; and
 - g. adhere to the Alaska Humpback Whale Approach Regulations when vessels are transiting to and from the project site (see Title 50 Code of Federal Regulations [CFR] Part [§] 216.18, 223.214, and 224.103(b); these regulations apply to all humpback whales). Specifically, the pilot and crew will not;
 - i. approach, by any means, including by interception (i.e., placing a vessel in the path of an oncoming humpback whale), within 91 meters (300 feet) of any humpback whale;
 - ii. cause a vessel or other object to approach within 91 meters (300 feet) of any humpback whale; or
 - iii. disrupt the normal behavior or prior activity of a humpback whale by any other act or omission.
42. If a whale's course and speed are such that it will likely cross in front of a vessel that is underway, or approach within 91 meters (300 feet) of the vessel, and if maritime conditions safely allow, the operator will place the engine in neutral and will allow the whale to pass beyond the vessel.
43. Vessels will not allow lines to remain in the water unless both ends are under tension and affixed to vessels or gear.
44. Project-specific barges will travel at 12 knots or less.
45. Vessels will not approach within 5.5 kilometers (3 nautical miles) of Steller sea lion rookery sites listed in 50 CFR § 224.103(d).
46. Vessels will not approach within 914 meters (3,000 feet) of any Steller sea lion haulout or rookery.

Dredging and Underwater Excavation

47. All vessels involved in dredging and underwater excavation operations, including survey vessels, will travel at 12 knots or less.
48. Dredging and excavator operators will monitor a 50-meter (162-foot) shutdown zone and adjacent waters during all dredging and underwater excavating activities. The operators will cease the activity whenever a listed marine mammal enters or approaches within 50 meters.

Data Collection

49. PSOs will record observations on data forms or into electronic data sheets.
50. The USCG will ensure that the PSO contractor submits data electronically in a format that users can query, such as a spreadsheet or database (i.e., digital images of data sheets are not sufficient).
51. PSOs will record the following:
- a. project name, date, shift start time, shift stop time, and PSO identifier;
 - b. date and time of each reportable event (e.g., a listed marine mammal observation, operation shutdown, reason for operation shutdown, change in weather conditions);
 - c. weather parameters (e.g., % cloud cover, % glare, visibility) and sea state, where PSOs will use the Beaufort Wind Force Scale to determine sea state;
 - d. species, numbers, and, if possible, sexes and age classes of observed listed marine mammals;

- e. predominant anthropogenic sound-producing activities occurring during each listed marine mammal observation;
- f. observations of listed marine mammal behaviors and reactions to anthropogenic sounds and presence;
- g. geographic coordinates of initial, closest, and last location of listed species, including distance from the observer to the listed species, and minimum distance from the predominant sound-producing activity to the listed species; and
- h. whether the presence of a listed species necessitated the implementation of mitigation measures to avoid acoustic impact (i.e., shutdown), and the duration of time the presence of listed species affected normal operations.

Reporting

52. The USCG will submit a final report to NMFS within 90 calendar days of the completion of the project, summarizing the data recorded by emailing it to akr.prd.records@noaa.gov. The report will summarize all in-water activities associated with the proposed action and the results of PSO monitoring conducted during those activities.

53. The final report for projects will include:

- a. summaries of monitoring efforts, including dates and times of construction, dates and times of monitoring, and dates, times, and durations of shutdowns due to listed marine mammal presence;
- b. dates and times of listed marine mammal observations, geographic coordinates of listed marine mammals at their closest approach to the project site, including date, water depth, species, age/size/gender (if determinable), and group size;
- c. numbers of listed marine mammals observed (by species) during periods with and without project activities (and other variables that could affect detectability);
- d. observed listed marine mammal behaviors and movement types versus project activity at the time of observation;
- e. numbers of marine mammal observations/individuals seen versus project activity at the time of observation;
- f. any photos or videos taken of marine mammals; and
- g. digital, queryable documents containing PSO observations and records, and digital, queryable reports.

54. The USCG will submit monthly reports to NMFS within 15 days of the end of the month summarizing marine mammal species and numbers sighted, behavioral observations, construction shutdowns or delays, construction work completed during the reporting period, and the number of listed species observed within the harassment zones to date.

Unauthorized Take

55. If the PSO determines a listed marine mammal has been disturbed, harassed, harmed, injured, or killed (e.g., a listed marine mammal is observed entering a shutdown zone before operations can be shut down, or is injured or killed as a direct or indirect result of the action), the PSO will report the incident to NMFS within one business day, with information submitted to akr.prd.records@noaa.gov. These PSO records will include:

- a. digital, queryable documents containing PSO observations and records, and digital, queryable reports;
- b. date, time, and location of each event (provide geographic coordinates);

- c. description of the event;
- d. number of individuals of each listed marine mammal species affected;
- e. time the animal(s) were first observed or entered the shutdown zone, and, if known, the time the animal was last seen or exited the zone, and the fate of the animal;
- f. mitigation measures implemented prior to and after the animal was taken;
- g. if a vessel struck a listed marine mammal, the contact information for the PSO on duty on the vessel or the contact information for the individual piloting the vessel; and
- h. photographs or video footage of the animal(s), if available.

Stranded, Injured, Sick, or Dead Listed Species (not associated with the project)

56. If a PSO observes injured, sick, or dead marine mammals (i.e., stranded), they will notify the Alaska Marine Mammal Stranding Hotline at 877-925-7773. The PSOs will submit photos and available data to aid NMFS in determining how to respond to the stranded animal. If possible, the PSO will include the following data submitted to NMFS in response to stranded marine mammals:
- a. date/time, location of stranded marine mammal;
 - b. species and number of stranded individuals;
 - c. description of the stranded marine mammal's condition;
 - d. event type (e.g., entanglement, dead, floating); and
 - e. behavior of live-stranded marine mammals.

Illegal Activities

57. If the PSO observes listed marine mammals or other marine mammals being disturbed, harassed, harmed, injured, or killed (e.g., feeding or unauthorized harassment), the USCG will report these activities to the NMFS Alaska Region Office of Law Enforcement at 1-800-853-1964.
58. The report to NMFS will include the date/time, location, description of the event, and any photos or videos taken.

Extralimital Sightings

59. The USCG will report all observations of ESA-listed marine mammal species not considered in this consultation to NMFS within 24 hours. Photographs and/or video should be taken, if possible, to aid in the Photo identification of individual animals. Reports will include all applicable information that the final report will include.

3 Status of the Species and Critical Habitat in the Action Area

3.1 STATUS OF THE SPECIES

Species listed under the ESA that are expected to occur in the action area are summarized in Table 3. The list was created based on information from NOAA stock assessment reports (species ranges, habitat preferences; Carretta et al. 2024; NOAA Fisheries 2025a–d, 2026a–c; Young et al. 2024), data from surveys (Dahlheim et al. 2009; Schuette et al. 2023), and local expert knowledge (Jenniges, J., personal communication, , 6 January 2026). The Alaska Protected Resources Division of NOAA Fisheries previously provided an online species mapping tool; however, it is no longer available.

No species-specific or critical habitat studies were performed to directly support the proposed wharf demolition or wharf, trestle, floating pier, and covered mooring construction for homeporting major cutters. Recent in-water construction projects occurred at three locations in Gastineau Channel near USCG Station Juneau (e.g., Port of Juneau Cruise Ship Berths, Juneau Waterfront Improvement Project, and Alaska Marine Lines Cargo Dock); however, marine mammal monitoring reports for these projects are unavailable.

Table 3. Federally Listed Species, ESA Status, Expected Occurrence in the Action Area, and Critical Habitat Status for USCG Cutter Homeporting, Juneau, AK

SPECIES	ESA FEDERAL STATUS	EXPECTED OCCURRENCE IN ACTION AREA	CRITICAL HABITAT
Steller sea lion (<i>Eumetopias jubatus</i>) Western DPS	E	Occasional	Critical habitat does not occur within the action area
Humpback whale (<i>Megaptera novaeangliae</i>) Mexico DPS	T	Occasional in spring, summer, fall; rare in winter	Critical habitat does not occur within the action area

Notes:

DPS = Distinct Population Segment; E = Endangered; T = Threatened

Source: Carretta et al. 2024; NOAA Fisheries 2025a–d, 2026a–c; Young et al. 2024; Dahlheim et al. 2009; Schuette et al. 2023; Jenniges, J., personal communication, 6 January 2026

3.1.1 SPECIES LIKELY TO BE ADVERSELY AFFECTED

Steller Sea Lion

There are two DPSs of Steller sea lions. The endangered wDPS occurs west of Cape Suckling in the GOA (144° west longitude; Figure 3) and should be rarely found in the action area (Figure 2; NOAA Fisheries 2025b; Young et al. 2024). Young et al. (2024) estimate that 1.4% of Steller sea lions in Southeast Alaska are from the wDPS. The Eastern Stock (eDPS) occurs east of Cape Suckling, including in Southeast Alaska, and is not endangered or threatened (it was delisted on 4 November 2013; 78 FR 46392), and may regularly occur in the action area. Although there are regular movements and limited breeding across the stock boundary, the overall evidence supports a strong separation between the stocks (Young et al. 2024). Although this mixing zone near the stock boundary is far from the action area, wDPS sea lions could occasionally occur within it.

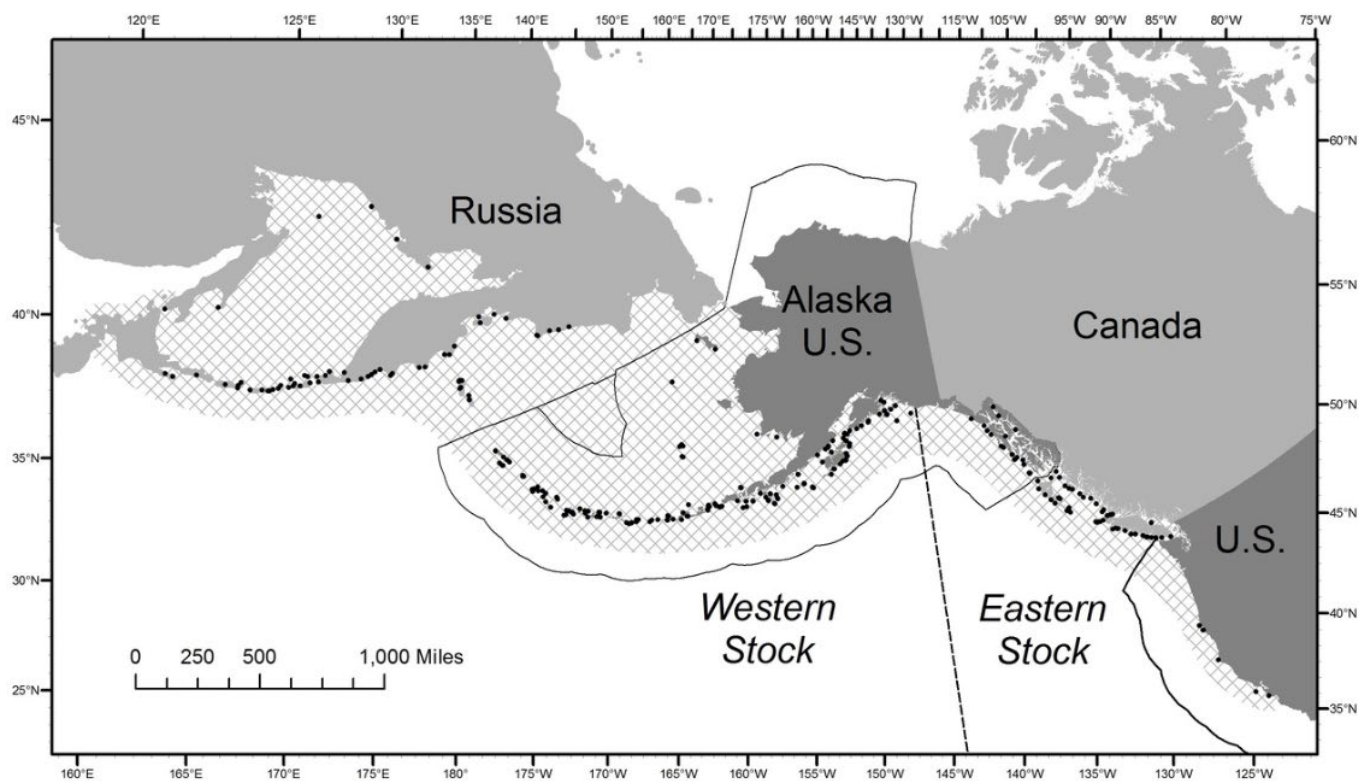


Figure 3. North Pacific Distribution of Steller Sea Lions and Major Haulouts and Rookeries¹

In Southeast Alaska, Steller sea lions breed at rookeries on offshore islands along the outer coast, while in winter they typically move to more protected haulouts (USCG 2021). Major rookeries and haulouts (i.e., more than 200 sea lions) in the east and west regions are designated and protected as critical habitat. The nearest critical habitat is a haulout on Benjamin Island, 40 kilometers (25 miles) straight-line to the northwest of the project. However, transiting from the Benjamin Island haulout to Juneau Harbor would be a circuitous route around Douglas Island (80 kilometers [50 miles]), and no such movements or congregations are recorded or expected to occur. There are two known haulout locations within approximately 13 kilometers (8 miles) of the entrance of Gastineau Channel at Circle Point in Stephens Passage and Dorothy (Point) in Taku Inlet (both are about 27 kilometers [17 miles] from Juneau Harbor; Alaska Fisheries Science Center 2026), but they are not considered “major” haulouts (greater than [$>$] 200 sea lions; 50 CFR § 226.202) or critical habitat (Figure 4).

¹ Black dots denote haulouts and rookeries; crosshatched area indicates generalized species distribution; black dashed line (144° west longitude) denotes stock boundary.

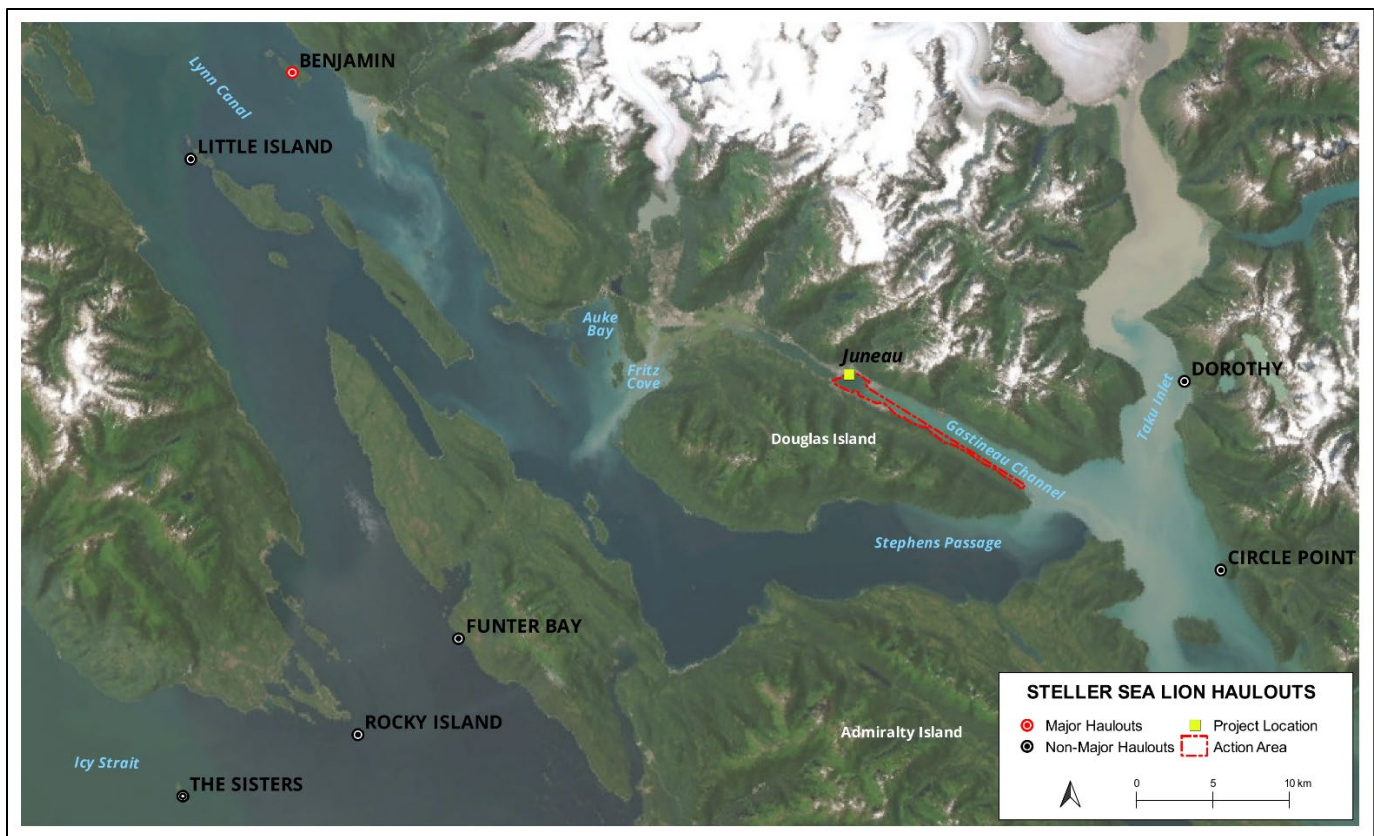


Figure 4. Steller Sea Lion Haulouts Near the Action Area

During the summer pupping and breeding season (mid-May through July), most adult Steller sea lions occupy rookeries and show strong site fidelity (Raum-Suryan et al. 2002; Hastings et al. 2017). In contrast, most juveniles and non-breeding adults use haulouts, though some occur at or near rookeries during the breeding season (Call and Loughlin 2005; Ban and Trites 2007). During the breeding season, females with nursing pups typically remain within about 37 kilometers (20 nautical miles) of rookeries (Merrick and Loughlin 1997). After breeding, Steller sea lions disperse widely, likely in response to seasonal prey availability, and shift increasingly to haulouts during fall and winter (Jemison et al. 2018).

The minimum population estimate of the entire wDPS in 2022 was 73,211, while the U.S. portion was 49,837 (37,333 non-pups, 11,987 pups, and 517 wDPS non-pups in the eDPS area; Young et al. 2024). For the eDPS, the minimum population estimate for the U.S. portion (excluding Canada and wDPS non-pups) is 36,308 (26,158 non-pups, 10,667 pups, and subtracting 517 wDPS non-pups; Young et al. 2024). Although there are no estimates of the maximum net productivity rate (R_{MAX}) for the wDPS or eDPS, the default pinniped rate of 12% is used for both DPSs (NOAA Fisheries 2023b; Young et al. 2024).

Humpback Whale

Three DPSs of humpback whales are found in Alaskan waters with names based on their breeding areas: Western North Pacific DPS (endangered), Mexico DPS (threatened), and Hawai'i DPS (not listed; 81 FR 62259). These DPSs were re-evaluated in 2023 and defined to contain sub-groups called demographically independent populations (DIP), "the population dynamics of the affected group is more a consequence of births and deaths within the group (internal dynamics) rather than immigration or emigration (external dynamics)" (NOAA Fisheries 2023b; Young et al. 2024). In addition to identifying three DIPs, they delineated four "units" that may contain one or more DIPs (Young et al. 2024). Different DPSs, DIPs, and units cannot be visually identified from each other unless individuals have been photo-identified from breeding and feeding grounds. Wade (2021) used photographs with mark-recapture modeling

techniques to estimate abundances in summer feeding areas and winter mating/calving areas (Wade 2021; USCG 2021). In Southeast Alaska, 97.6% of humpback whales came from the Hawai'i DPS, 2.4% came from the Mexico DPS, and 0% came from the Western North Pacific DPS (Wade 2021). The USCG determined that there will be "no effect" on the Western North Pacific DPS because it does not occur near the action area (see Section 1.1).

The Mexico DPS population has been estimated to be between 2,806 (84 FR 54354) and 6,000–7,000 (Calambokidis et al. 2008). However, more recent estimates for the winter Mexico DPS population are 2,913 (Wade 2021) and 11,278 for the winter Hawai'i DPS population (Becker et al. 2022; Young et al. 2024). The 2021 estimate of 5,890 humpbacks in the summer Southeast Alaska/northern British Columbia population comes from a mixture of the Hawai'i and Mexico DPSs (Wade 2021). Assuming 2.4% came from the Mexico DPS, approximately 141 humpbacks in Southeast Alaska/northern British Columbia are from the threatened Mexico DPS, and 5,749 are from the Hawai'i DPS. These populations are likely growing with annual increases reported of 10.6% for Southeast Alaska (Dahlheim et al. 2009), 8.9% for the entire Mexico DPS (Martinez-Aguilar 2011, as cited in Young et al. 2024), and 8.2% for the whole U.S. West Coast since 1989 (Calambokidis and Barlow 2020). However, Young et al. (2024) point out that growth rates may have slowed due to the marine heatwave in the GOA in 2014–2016, which resulted in mortalities of large whales (Arimitsu et al. 2021) and a similar decline in abundance and calf production in Southeast Alaska (Neilson and Gabriele 2019). Considering these factors, Young et al. (2024) conclude that the R_{MAX} of 7% will be used for the Hawai'i DPS and 6.6% for the Mexico DPS until additional data becomes available.

Group size of humpback whales in Southeast Alaska generally ranges from one to four individuals (Dalheim et al. 2009) with means (X plus or minus $\pm$ standard deviation) of 1.38 ± 0.70 in spring, 1.65 ± 1.36 in summer, and 1.95 ± 2.72 in the fall, with significantly less in the spring and more in the summer and fall. Zerbini et al. (2025) report that the average humpback whale group size is 1.95 (coefficient of variation = 0.09) in southern Southeast Alaska. However, there is high variability at specific inlets and harbors throughout the convoluted waters of the Inside Passage (89 FR 2584). The Auke Bay (89 FR 2584) and Statter Harbor (83 FR 52394) marine construction projects used mean group sizes of four and two, respectively, to estimate take. However, those areas are thought to have certain habitat features that concentrate prey and attract foraging humpback whales (83 FR 52394).

The nearest biologically important area for humpback whales is in Stephens Passage, 25 kilometers (16 miles) from Juneau Harbor by sea (Wild et al. 2023). This area is designated as important for feeding from June to mid-October.

3.2 STATUS OF CRITICAL HABITAT

Under the ESA, NMFS defines critical habitat as: "Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection." No designated critical habitat for ESA-listed species occurs in the action area.

Steller Sea Lion

In Southeast Alaska (east of 144° west longitude), critical habitat has been designated for both the wDPS and eDPS by NMFS to be within 900 meters (3,000 feet) of major haulouts and rookeries (>200 sea lions; Figure 5; 50 CFR § 226.202). This includes a vertical air zone, a landward terrestrial zone, and a seaward aquatic zone of 900 meters (3,000 feet). No effect is assigned because the nearest rookery to the action area is White Sisters Island, over 130 kilometers (80 miles) to the southwest, and the nearest "major" haulout is on Benjamin Island, 40 kilometers (25 miles) to the northwest of the action area (50 CFR § 226.202; NOAA Fisheries 2025c).

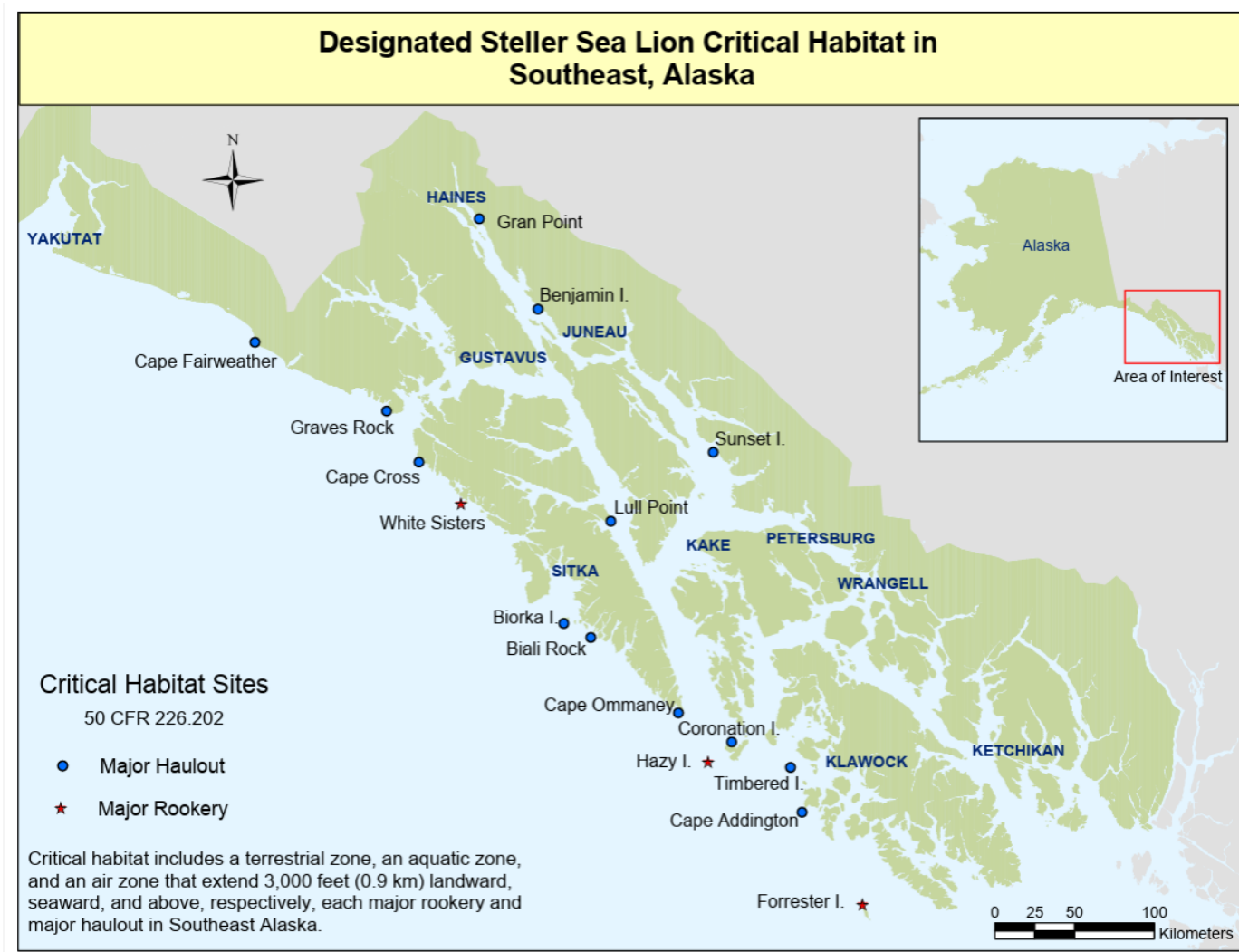


Figure 5. Designated eDPS and wDPS Steller Sea Lion Critical Habitat in Southeast Alaska

Humpback Whale

No critical habitat occurs in or near the action area for the Western North Pacific or Mexico DPS of the humpback whale (Figure 6; 84 FR 54354; NOAA Fisheries 2022a). The nearest critical habitat for humpback whales is near Prince William Sound, about 700 kilometers (435 miles) to the northwest.

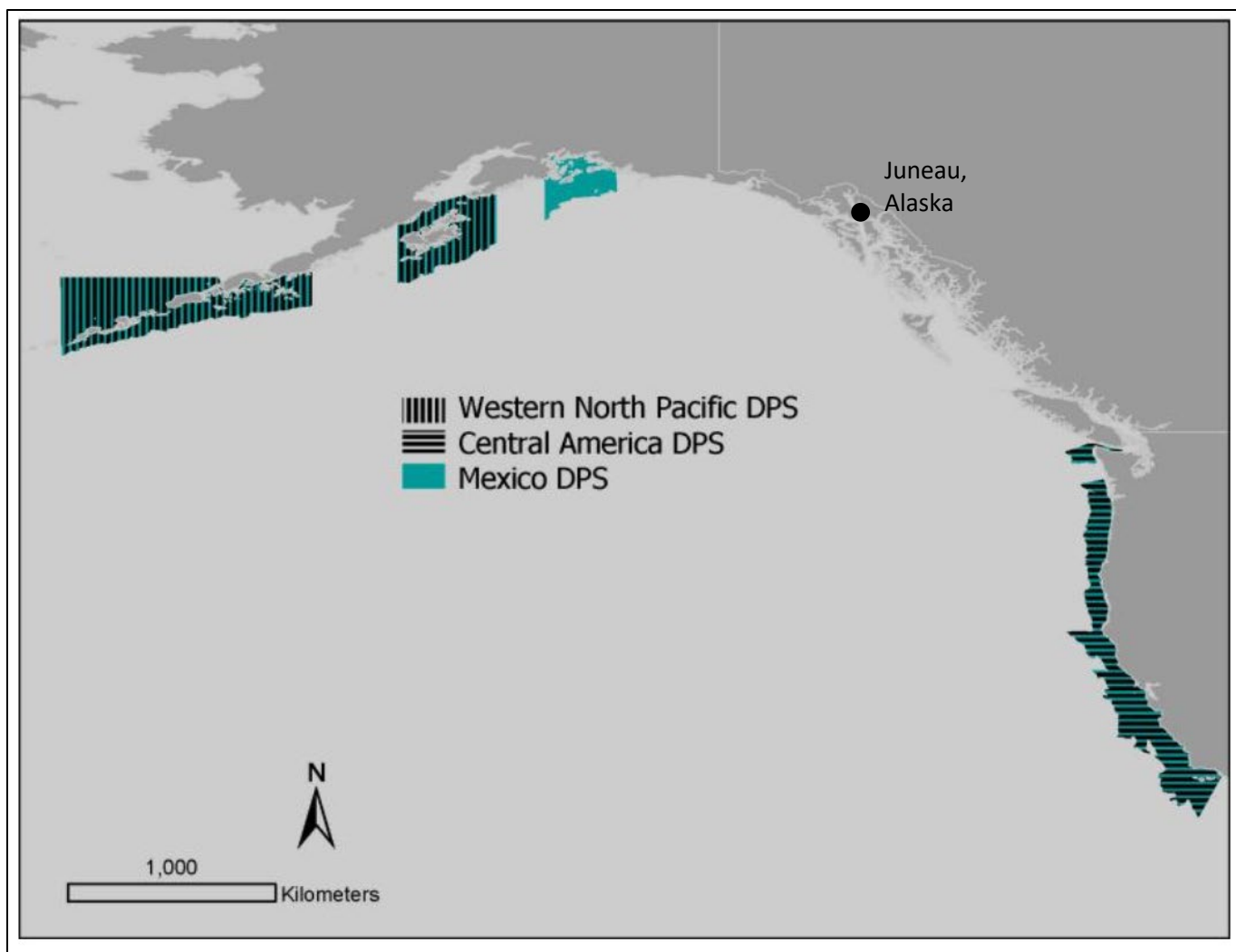


Figure 6. Designated Humpback Whale Critical Habitat in Alaska

4 Environmental Setting

Juneau, the capital city of Alaska, is located approximately 180 nautical miles (333 kilometers) northeast of Sitka, the former state capital. The local economy is strongly influenced by government employment, with approximately 40% of the workforce employed by state, federal, or municipal agencies. Tourism also represents a significant economic sector, and commercial fishing and forestry continue to contribute to the community's economic base (USCG 2021).

USCG Station Juneau is in the Port of Juneau downtown waterfront harbor area. There, the USCG maintains four response boats, two each of the standard 25-foot and 45-foot vessels. Although they have many other duties, these vessels are commonly termed "lighthouse tenders." This facility also hosts visiting cutters but is not currently the homeport for any such large USCG ships (USCG 2021).

The port includes two public and two private cruise ship berths, private terminals for two interstate barge lines, two marine fueling terminals, a fish-processing plant and dock, USCG and NOAA vessel docks, floatplane facilities, and three small boat harbors with a total of 950 vessel slips. It can also accommodate an additional ship at anchor with lightering facilities. Because the Port of Juneau is protected from the Pacific Ocean by a 120-kilometer (75-mile) wide belt of islands, the port remains ice-free and open year-round (USCG 2021).

The major Juneau area sport and personal use fisheries are in marine waters for Chinook salmon, coho salmon, pink salmon, Dolly Varden, herring, halibut, Pacific cod, rockfish, shrimp, king crab, tanner crab, and Dungeness crab (ADF&G n.d.-c; n.d.-d).

Human activities in this area pose several risks to marine mammals, including coastal and marine development, tourism, fisheries, vessel strikes, sound and water pollution, prey reduction, direct mortalities, and research. Other factors, such as predation and environmental change, can affect marine mammals simultaneously, compounding their impact.

There is no critical habitat in the action area, so it will not be addressed in this section.

4.1 GENERAL HABITAT FEATURES

Southeast Alaska's coastal landscape is characterized by more than 18,000 miles (28,968 kilometers) of shoreline, with extensive nearshore areas that connect over 5,000 islands across the Alexander Archipelago. Within this system, open water, intertidal areas, beach habitat, and other wetland features are prominent. Aquatic resources are abundant within this region (Southeast Alaska Fish Habitat Partnership n.d.).

Gastineau Channel is a glacially carved valley approximately 15 miles (24 kilometers) long and 0.4–1 miles (0.6–1.6 kilometers) wide that separates the mainland from Douglas Island, with Juneau located near its midpoint. North of downtown, the channel transitions to extensive intertidal wetlands. To the south, it deepens to an average of approximately 100 feet (30 meters) and extends to the confluence with Stephens Passage and Taku Inlet. At the opening, the water depth increases to approximately 300 feet (91 meters). The tides are semidiurnal, with a mean tidal range of 16.3 feet (5 meters).

Routine vessel traffic in Gastineau Channel, together with nearby shore-based industrial and commercial operations, contributes to heightened ambient underwater and in-air noise levels in the action area, with sound levels generally increasing closer to the project site. Ambient anthropogenic noise is expected to fluctuate seasonally, reaching higher levels during the summer months when tourism and fishing activity are greatest.

4.2 AQUATIC RESOURCES

Southeast Alaska supports several species of demersal, pelagic, anadromous, and coastal fish. Common species and groups include Pacific cod, walleye pollock, herring, salmon, rockfish, flatfish, sculpins, greenlings, sharks, skates, and

various other coastal and demersal species (Johnson et al. 2015). Additional information on species managed under Fisheries Management Plans is contained in the EFH Assessment in Appendix B.

4.2.1 FINFISH

Alaska's marine and terrestrial ecosystems support a high level of biodiversity, providing habitat for approximately 384 marine fish species and 52 freshwater or anadromous species. As a result, Alaska's waters sustain substantial aquatic productivity, supporting billions of individual fish (USCG 2021).

EFH has been designated for 16 fish species within the project action area, as described in the EFH Assessment (Appendix B). The ADF&G Anadromous Waters Catalog (ADF&G n.d.-b) includes several anadromous fish-bearing streams within or adjacent to the action area, supporting minor returns of pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*Oncorhynchus keta*), or coho salmon (*Oncorhynchus kisutch*). Gold Creek, closest to USCG Station Juneau, holds small numbers of returning chum and pink salmon from July through September. However, most fish cannot successfully spawn because they cannot pass above the concrete flume that runs through town (Bethers et al. 2012). The Macaulay Salmon Hatchery, operated by the Douglas Island Pink and Chum, Inc. (DIPAC), is located approximately 4.2 kilometers (2.7 miles) northwest of the project and rears chum, coho, and chinook salmon (*Oncorhynchus tshawytscha*) for release in Gastineau Channel and area streams. The hatchery supports commercial and sport fishing for salmon in the Juneau area (DIPAC 2025).

Marine fish assemblages in the waters of Southeast Alaska have been evaluated through regional sampling efforts. Species classified as common—defined as occurring in 10% or more of sampling hauls—within the Alexander Archipelago region were identified by Johnson et al. (2015) and include the following species:

- Pacific cod (*Gadus macrocephalus*);
- Walleye pollock (*Theragra calcogramma*);
- Rock sole (*Lepidopsetta spp.*);
- Starry flounder (*Platichthys stellatus*);
- Pacific herring (*Clupea pallasii*);
- Pacific sand lance (*Ammodytes hexapterus*);
- Kelp greenling (*Hexagrammos decagrammus*);
- Whitespotted greenling (*Hexagrammos stelleri*);
- Crescent gunnel (*Pholis laeta*);
- Bay pipefish (*Syngnathus leptorhynchus*);
- Tubenose poacher (*Pallasina barbata*);
- Snake prickleback (*Lumpenus sagitta*);
- Copper rockfish (*Sebastes caurinus*);
- Buffalo sculpin (*Enophrys bison*);
- Great sculpin (*Myoxocephalus polyacanthocephalus*);
- Pacific staghorn sculpin (*Leptocottus armatus*);
- Red Irish lord (*Hemilepidotus hemilepidotus*);
- Silverspotted sculpin (*Blepsias cirrhosus*);
- Threespine stickleback (*Gasterosteus aculeatus*);
- Shiner perch (*Cymatogaster aggregata*); and
- Tubesnout (*Aulorhynchus flavidus*).

4.2.2 BENTHOS

In high-energy environments, the distribution and composition of benthic communities within intertidal and nearshore habitats are largely influenced by an organism's tolerance to wave exposure and periodic desiccation, as well as its capacity to persist under physically stressful conditions. In contrast, in lower-energy environments where wave action is reduced, benthic distribution and diversity are more strongly influenced by physicochemical factors, including sediment characteristics, salinity gradients, dissolved oxygen levels, and siltation rates (USCG 2021). In addition to these factors, predators often influence the abundance and distribution of benthic prey.

Shellfish species expected to occur in Southeast Alaska include pinto abalone (*Haliotis kamtschatkana*), purple-hinged rock scallop (*Crassadoma gigantea*), and weathervane scallop (*Patinopecten caurinus*), as well as several clam species, including Baltic macoma (*Macoma balthica*), geoduck (*Panopea abrupta*), littleneck (*Leukoma staminea*), and razor clams (*Siliqua patula*). In addition, shrimp species such as coonstripe (*Pandalus hypsinotus*), northern (*Pandalus eous*), sidestriped (*Pandalopsis dispar*), and spot shrimp (*Pandalus platyceros*), and crab species including blue king (*Paralithodes platypus*), Dungeness (*Metacarcinus magister*), golden king (*Lithodes aequispinus*), red king (*Paralithodes camtschaticus*), and Tanner crab (*Chionoecetes bairdi*) are likely to be present (ADF&G n.d.-e).

4.3 EXISTING BASELINE CONDITIONS

Coastal development in Gastineau Channel poses risks to marine mammals, particularly humpback whales and Steller sea lions that are occasionally present in the area. The increasing human population in the area leads to habitat loss, increased vessel traffic, pollutants, and noise from construction. Existing developments have already caused direct and indirect habitat loss, affecting the accessibility of important feeding and rearing areas. Anthropogenic activities like dredging and construction alter habitat and prey availability. Structures and developments along the shoreline disrupt nearshore habitats and degrade the environment through vessel traffic, noise, and pollution.

4.3.1 VESSEL TRAFFIC

The Port of Juneau is one of the busiest cruise ship destinations in the nation. In 2025, more than 650 cruise vessel arrivals were scheduled (Cruise Line Agencies of Alaska 2025), and Juneau saw 1.7 million passengers, its highest number of cruise ship passengers ever recorded (City and Borough of Juneau 2026).

The port is an important intermodal hub between the cruise ships and interstate air carriers, as well as for local ground and air transport of visitor traffic (USCG 2021). For ocean-going freight vessels, passenger vessels (i.e., cruise ships), towboats, and assist tugs tracked by Marine Exchange of Alaska with a gross weight of at least 300 tons, Juneau was recorded as having 94 barges, one bulk carrier, 292 ferries, one general cargo ship, five miscellaneous ships, 471 passenger ships, and 96 tugboats calling on the port in 2004 (USCG 2021). Based on thermal imaging from 2017 and vessel traffic density data compiled between 2008 and 2015, it appears that the port records over 6,300 large vessel transits on average per year (USCG 2021).

In 2023, the Alaska Marine Mammal Stranding Network confirmed seven vessel strikes of live baleen whales, including six humpback whales and one unidentified baleen whale. Six of the strikes occurred in Southeast Alaska, three of which were reported in Stephan's Passage or Lynn Canal near Juneau (NOAA Fisheries 2024a).

Vessel strikes of Steller sea lions are not considered a significant threat to the wDPS Steller sea lion relative to other risks (NOAA Fisheries 2008). However, in 2023, the Alaska Marine Mammal Stranding Network recorded three Steller sea lions with evidence of vessel injuries, including one on Benjamin Island north of Juneau, one in Glacier Bay, and one in Cordova, Alaska (NOAA Fisheries 2024a).

4.3.2 NATURAL AND ANTHROPOGENIC SOUNDS

The acoustic environment in Gastineau Channel consists of natural physical sounds, including wind, waves, currents, earthquakes, tidal currents, and atmospheric sounds. Tidal influences may play a significant role in contributing to the overall sound in the area. Marine mammals, fish, and invertebrates also produce biological sounds, whereas human-caused sounds include vessel engines and propeller cavitation, port operations, dredging, aircraft overflights, construction noise, and infrastructure maintenance noise. Ambient noise levels in Gastineau Channel are generally assumed to be below 120 dB under calm conditions. However, they may exceed 120 dB during environmental events such as high winds and peak tidal fluctuations.

Vessel Traffic Sound

Juneau is a vital transportation center for Alaska, with goods and passengers arriving and departing frequently. Within the project's action area, there is regular vessel traffic (see Section 4.3.1). The sound source levels (SSLs) of the large vessels transiting to and from Juneau are not known, but vessels of comparable size (515 feet to 1,155 feet [157 meters to 352 meters]) were recorded emitting low-frequency sounds in the range of 180 dB to 190 dB (McKenna et al. 2013). Therefore, the current baseline of vessel noise in the project action area is significant.

Vessel noise can interfere with marine mammals' communication and alter their behavior (Erbe et al. 2019). Marine vessel traffic—such as that from sea lion research, tourism, and other maritime activities—may disrupt sea lions' feeding, breeding, and behavioral patterns. However, the Steller Sea Lion Recovery Plan (NOAA Fisheries 2008) classified disturbances from these sources as a low threat to the recovery of the wDPS.

Increased noise from human activities, such as shipping, military sonar, and coastal development, could pose a threat to humpback whales in the North Pacific. The expanding whale watching industry may also be a stressor, as whales may abandon preferred habitats if disturbance becomes excessive (Young et al. 2024). Losing these habitats could reduce whale fitness by limiting access to essential food and resting areas.

Construction and Dredging

Pile driving and dredging occur occasionally in Gastineau Channel, with most of the activity near the industrialized area near Juneau. Pile driving is the most significant stressor for marine mammals and fish during dock construction, and most monitoring, mitigation, and sound source studies have focused on this noise source.

Several recent in-water infrastructure projects have occurred in Juneau Harbor, adjacent to the project. In 2008, the City and Borough of Juneau installed a rubble-mound breakwater extension and, in 2012, a pile-supported concrete floating breakwater at Douglas Harbor in Gastineau Channel, southeast of the project. In 2016, new cruise ship berths, capable of accommodating two 1,100-foot vessels, were completed in Juneau Harbor, to the east of USCG Station Juneau. As part of that project, fifty-seven (57) piles up to 48 inches in diameter were installed to support two approach docks, two concrete floats, mooring dolphins, and breasting dolphins (Manson Construction, Inc. n.d.; PND Engineers, Inc. n.d.). The city renovated the landward waterfront area after the cruise ship terminal was completed, installing an additional 127 piles, ranging from 16 to 24 inches in diameter, to support a new timber deck (PND Engineers, Inc. 2018). The Alaska Marine Lines Cargo dock in Gastineau Channel, located approximately 1 mile south of the project, underwent repairs to a mooring dolphin in 2025. As part of that project, six damaged piles (two 36-inch king piles and four 24-inch batter piles) were removed with a vibratory hammer.

Maintenance dredging of Juneau harbor was completed in 2016. The dredging contractor disposed of spoils in Gastineau Channel and capped it with sand. The sand cap was monitored, and as a result of benthic recolonization and sediment profile imaging, ongoing monitoring was terminated in 2021 (USACE 2022). The City and Borough of Juneau conducted maintenance dredging at the Aurora and Harris harbors, to the northwest of the project, in 2021 (City and Borough of Juneau 2021).

Aircraft Sound

The Juneau Harbor Seaplane Base is located to the east of the USCG Station Juneau and is used by recreational aircraft and tour operators. Juneau International Airport is located approximately 6 miles north of the project at the north end of Gastineau Channel near Fritz Cove. Aircraft approach and departure patterns include low altitudes (e.g., 500 feet to 3,000 feet above mean sea level) over Gastineau Channel (Juneau Commercial Operators Letter of Agreement 2019).

Sound from aircraft does not transfer well to water, but it can be heard underwater when aircraft are within a certain range and surface conditions are calm (Richardson et al. 1995). The presence of aircraft and their noise can cause behavioral changes in whales, such as diving, altering course, swimming vigorously, and breaching (Patenaude et al. 2002).

The responsiveness of baleen whales, such as humpbacks and fin whales, to aircraft varies with their behavioral state, habitat, and age. Reactions range from no response to behaviors such as diving, turning, or other changes in activity. Whales that are feeding or socializing often seem unaffected, while those with calves or in confined waters tend to be more sensitive. Incidental or occasional overflights generally do not lead to long-term displacement or abandonment of whales (Richardson et al. 1995).

Aircraft can also disturb Steller sea lions, particularly when they are hauled out. Such disturbance at a rookery or haulout can lead to serious injuries or even death, mainly due to trampling. For example, over 1,000 sea lions were seen stampeding from a beach after a large helicopter was observed more than a mile away (Withrow 1982, as cited in Richardson et al. 1995).

Sound Effects on Prey Species

Anthropogenic sound sources in Gastineau Channel and Southeast Alaska include vessels, dredging, and pile driving. Pile driving generates intense underwater sound pressure waves that can injure or kill fish, most commonly by rupturing swim bladders and causing internal hemorrhaging; smaller fish are especially vulnerable. Fish with gas-filled swim bladders and bottom-dwelling species are more susceptible to this type of acoustic injury than fish without swim bladders or those higher in the water column. In addition to physical injury, pile driving noise disrupts fish behavior, including schooling, coordination, and migration, thereby interfering with feeding, predator avoidance, and spawning movements. Impact hammers are generally more harmful than vibratory hammers because they produce sharp, high-intensity sound spikes that can reach injurious levels but do not reliably trigger avoidance responses in fish, allowing them to remain in dangerous sound fields (Limpensel et al. 2023). In one 2009 study, juvenile coho salmon exposed to sheet pile impact and vibratory installation in Cook Inlet, Alaska, showed no mortality or internal injuries within 48 hours of exposure (Hart Crowser, Inc., Pentec Environmental, and Illingworth and Rodkin, Inc. 2009).

4.3.3 WATER POLLUTION

The Southeast Alaska region, and Juneau, Alaska in particular, is populated and industrialized, leading to various pollutant loads in its waters. A variety of intentional and accidental discharges of contaminants contribute to declining water quality in Alaska's marine waters. Intentional sources include domestic wastewater at various treatment levels, stormwater runoff, and multiple types of vessel discharges (for example, greywater, blackwater, coolant, bilge water, ballast, deck wash, etc.). Wastewater from domestic, municipal, and industrial sources in Alaska is managed by the ADEC and is permitted under the Alaska Pollutant Discharge Elimination System. Stormwater runoff—which originates from streets, construction and industrial areas, airports, and harbors—can carry numerous pollutants from coastal communities into surrounding marine waters, including hazardous materials resulting from spills and contaminated upland sites. Nonpoint source water pollution, which does not originate from an end-of-pipe discharge, remains the primary cause of water pollution in Alaska (USCG 2021).

The number and volume of oil spills and other accidental releases of hazardous materials in Alaska's marine waters are unpredictable and have been highly variable in the past. Approximately 17,200 accident and spill reports from

vessels operating in or near Alaska territorial waters were entered into the USCG database from 1 January 1990 through 8 April 2012. Between 1995 and 2012, the number of marine spills greater than 100 gallons reported annually ranged from 11 (2005) to 37 (1998), and total annual spill volume ranged from 5,017 gallons (2003) to 352,602 gallons (2004; USCG 2021).

Overall, efforts are made to regulate and manage pollutants in the region to minimize their impact on the environment and marine life. However, the potential risks and long-term consequences of these pollutant sources remain uncertain.

4.3.4 ENTANGLEMENT AND FISHERIES INTERACTIONS

Entanglement in fishing gear and other human-made materials is a major global threat to pinnipeds and cetaceans. Marine debris, mooring and anchor lines, and underwater cables also pose risks. While some animals can escape (Jensen et al. 2009), many entanglements result in lethal or sublethal effects, such as drowning, injury, reduced foraging, reduced fitness, and increased energy expenditure (Van der Hoop et al. 2017).

Entangled marine mammals may drown, starve, suffer trauma or infection, or be struck by vessels due to restricted movement. In humpback whales, loosely wrapped gear can cause disfigurement, while tight lines that indent the skin or restrict movement can result in lacerations, fin loss, organ and muscle damage, and impaired feeding and breathing. Chronic line tension causes physiological stress, with elevated cortisol and immune suppression observed in entangled whales (Rolland et al. 2005), increasing disease susceptibility.

The NMFS Alaska Marine Mammal Stranding Network documented 199 large whale entanglements from 1990–2016, 67% involving humpbacks. Most occur from June to early September in nearshore Alaska waters, with 29% linked to pot gear and 37% to gillnets; longline gear accounts for only 1–2% of known humpback cases. Most events occur in Southeast Alaska, including seven of 10 confirmed cases in 2018 (NOAA Fisheries 2023c). In 2023, one harbor porpoise and one humpback whale were found dead in Lynn Canal with evidence of entanglement. Eight humpback whale entanglement events were reported in Southeast Alaska in 2023, three of which were in the vicinity of Juneau (NOAA Fisheries 2024a).

Fishing gear and debris were ranked as a low threat to wDPS Steller sea lion recovery (NOAA Fisheries 2008); however, the true level of impact is uncertain because many animals die at sea and may go undocumented (Raum-Suryan et al. 2009). From 2013–2017, entanglement was the leading cause of human-caused serious injury and mortality in Alaska, with Steller sea lions most affected (Delean et al. 2020). There were 105 wDPS and 350 eDPS cases from fishing gear and debris. Because both DPSs occur in Southeast Alaska, some cases may involve wDPS animals. Raum-Suryan et al. (2009) recorded at least 386 entanglements or ingestions of fishing gear in Southeast Alaska and northern British Columbia between 2000 and 2007. The estimated annual incidental mortality of wDPS Steller sea lions in U.S. fisheries is 39 animals per year (Young et al. 2024). In 2023, 22 entangled Steller sea lions were reported to the Alaska Marine Mammal Stranding network, most of which were not responded to (NOAA Fisheries 2024a).

4.3.5 ENVIRONMENTAL CHANGES

Long-term warming of the atmosphere and oceans has contributed to reductions in sea ice and snow cover, sea level rise, and increased greenhouse gas concentrations (IPCC 2023). Alaska has experienced disproportionately high rates of warming, with mean annual air temperatures increasing by approximately 3 degrees Fahrenheit (°F; 1.7 degrees Celsius [°C]) over the past 60 years and winter temperatures increasing by approximately 6 °F (3.3 °C; USGCRP 2014).

Environmental changes are expected to substantially alter Arctic and sub-Arctic marine ecosystems, with potential effects on the composition, distribution (both spatial and temporal), and availability of prey resources for Steller sea lions (NOAA Fisheries 2025c). The Pacific marine heatwave, known as "the blob," has been associated with poor growth and survival of Pacific cod, an essential prey species for Steller sea lions (Barbeaux et al. 2020). Unusual

mortality events of large cetaceans, including humpback whales, have been observed in Alaskan waters and are potentially linked to warming oceanic temperatures (Arimitsu et al. 2021; Neilson and Gabriele 2019).

The impacts of warming ocean temperatures on whales are unknown, but it is considered one of the largest threats to high-latitude regions where many humpback whales forage. Most notably, the timing and distribution of sea ice coverage are changing dramatically in response to altered oceanographic conditions. Any resulting changes in prey distribution could lead to shifts in foraging behavior, nutritional stress, and reduced reproduction in humpback whales. Additionally, changes in water temperature and currents could affect the timing of environmental cues important for navigation and migration (NOAA Fisheries 2025d).

5 Effects of the Proposed Action on Federally Listed Species

The analysis of the project's effects on ESA-listed species requires evaluating the direct and indirect effects of activities that occur beyond the existing environmental baseline. The environmental baseline, discussed in Section 4.3, refers to the existing natural and anthropogenic pre-project environmental conditions. The anthropogenic conditions include the historical and current effects of actions by federal, state, or private entities, as well as other human activities within the designated area. Additionally, it considers the anticipated impacts of proposed federal projects that have already undergone consultation, as well as the effects of concurrent state or private actions during the ongoing consultation process. Indirect effects are those that result from the proposed action but occur at a later time, with a reasonable certainty of occurrence.

The proposed project at USCG Station Juneau may cause stressors that directly and indirectly affect ESA-listed marine mammals. Stressors are any physical, chemical, or biological phenomena that can induce an adverse response. The following are project stressors that may affect ESA-listed species:

1. Impulsive sound fields in water and in air from pile installation with impact hammers and DTH drilling,
2. Continuous sound fields in water and in air produced by non-impulsive sound sources such as vibratory and DTH drilling, pile installation, and construction vessels,
3. Risk of vessel strikes on marine mammals,
4. Seafloor disturbance from pile installation and removal, wharf demolition, and dredging,
5. Displacement of prey species from increased suspended sediment, and
6. Entanglement in debris and equipment lines and ingestion of trash.

During the construction and dredging of the project, activities may affect water quality. Water may become turbid from disturbing the seafloor, and this could affect the feeding behavior of ESA-listed species; however, this will be a temporary condition that should return to baseline. The water quality issue most concerning will be from spills and other water pollution sources that could have lasting effects; however, mitigation measures will minimize these (see Sections 2.4 and 4.3.3). The footprint of the pilings and wharf installed into the seafloor will result in a small amount of benthic habitat loss (up to about 1 acre if a bulkhead wharf design is chosen); however, neither of the ESA-listed species in the action area (Steller sea lions and humpback whales) is considered a benthic feeder. The addition of new pilings could increase the availability of escape and rearing habitat for Steller sea lion prey species. Entanglement and ingestion hazards are a major source of death and strandings in marine mammals (see Section 4.3.4), and this project is committed to mitigating against any source of these hazards (see Section 2.4). Vessel strikes are also a major source of marine mammal mortality, and this project will follow specific mitigation techniques to minimize the potential of a strike (see Sections 2.4 and 4.3.1). Most of the analysis of the effects on wDPS Steller sea lions and Mexico DPS humpback whales will focus on in-water impulsive and non-impulsive sound sources, as these likely have the most direct impacts.

5.1 INDIRECT EFFECTS

Long-Term Effects

The proposed project may result in indirect, long-term effects associated with the potential introduction of invasive species via vessel ballast water discharge and hull fouling. For example, the introduction of non-native or invasive species via vessel ballast water and hull fouling can establish invasive plant and animal species in marine and nearshore environments. Invasive vegetation may inhibit the establishment of native submerged aquatic vegetation (SAV) or outcompete native plant communities already present. Nonnative animal species may also be introduced directly through vessel activities or indirectly through changes in vegetation assemblages. They may compete with native species for food and other resources or prey upon native populations. These changes could alter the

abundance, composition, and distribution of prey species that are important to federally listed individuals. At present, seven invasive marine species have been identified in Alaska by the ADF&G, including Atlantic salmon (*Salmo salar*), Chinese mitten crab (*Eriocheir sinensis*), European green crab (*Carcinus maenas*), Japanese wireweed (*Sargassum muticum*), and three invasive tunicate species (*Didemnum vexillum*, *Botrylloides violaceus*, and *Botryllus schlosseri*) as well as the ship-loving Norway rat (*Rattus norvegicus*; ADF&G n.d.-f).

Construction support vessels associated with the proposed action will typically be sourced from the U.S. Pacific Coast. To the extent practicable, vessel crews will inspect hulls prior to mobilization to reduce the potential for introducing new invasive species or increasing the abundance of already present species. As a result, short-term effects on marine species assemblages from the introduction of nonnative or invasive species associated with construction vessels are expected to be negligible.

Routine maintenance of USCG vessels includes hull preservation activities, and if invasive species are observed, they will be removed to prevent further spread. Accordingly, the long-term risk to marine species assemblages from the introduction of nonnative or invasive species associated with USCG vessels is expected to be negligible.

Short-Term Effects

Potential indirect, short-term effects of the proposed action include the temporary displacement of prey species from the action area during construction activities. Displacement may be caused by the physical presence of construction vessels, dredging activities, and in-water construction. Increased turbidity in the water column will result from surface water runoff, wharf demolition, pile driving, DTH drilling, dredging, and in-water placement of rock. Dredging spoils will be discharged at an offshore location approved under a Clean Water Act Section 404 permit by USACE to minimize impacts on fish and benthic invertebrates. Implementing standard best management practices will substantially reduce the potential for impacts on surface waters and runoff into marine waters. The USCG will obtain authorization under a Clean Water Act Section 402 permit if the drill slurry or cuttings from DTH drilling are discharged to water.

The temporary increase of localized turbidity may reduce primary productivity and dissolved oxygen by smothering, abrasion, or shading photosynthetic organisms. Excess fine particles can settle on the seafloor, harming macroinvertebrates by filling their habitat. High concentrations of fine sediments in water can also harm fish by covering respiratory surfaces, smothering eggs, trapping hatchlings, and impairing feeding. If contamination is present in the sediments, pile removal can reintroduce it into the water column and surface sediments. However, removing the existing creosote-treated timber piles, a toxic marine pollutant, may provide long-term benefits for aquatic species (Limpinsel et al. 2023).

Displacement of prey species from project activities could result in a short-term reduction in foraging opportunities for ESA-listed species. However, in-water construction associated with the proposed project is expected to be limited in duration, totaling approximately 12 months over two construction seasons. Fish and other aquatic prey temporarily displaced during construction are anticipated to return to the action area following the completion of in-water work. Accordingly, indirect effects associated with short-term prey displacement are expected to be negligible for protected species.

5.2 DIRECT EFFECTS

The project will not cause any direct effects to critical habitat for the ESA-listed species considered in this document. Risks from other direct effects, such as entanglement with equipment lines or debris, vessel strikes, or contamination from a spill, though possible, are considered negligible. The anticipated direct effects include increased underwater and airborne noise from pile installation and removal as well as vessel activity.

Underwater noise from pile installation and removal could cause behavioral disruption or, less likely, auditory injury to marine mammals. The ESA defines **take** as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The ESA further defines **harass** as “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” **Harm** is

defined “as an act which actually kills or injures wildlife ... by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR § 17.3).

Under the ESA, the take of marine mammals is prohibited unless authorized under Section 101(a)(5) of the MMPA. The MMPA defines two levels of harassment: **Level A** – “Has the potential to *injure* a marine mammal or marine mammal stock in the wild;” and **Level B** – “Has the potential to *disturb* a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.” While the ESA definitions of harm and harassment generally imply a higher degree of impact than the MMPA definitions of Level A and Level B harassment, NMFS has not established separate quantitative thresholds for assessing underwater noise effects under the ESA. Accordingly, this assessment uses the MMPA Level A (injury) and Level B (behavioral disturbance) thresholds as conservative proxies to evaluate the potential for effects and inform the ESA adverse effects determination.

The USCG is requesting authorization for small numbers of Level A and Level B harassment, incidental to the project activities under the MMPA and ESA, for wDPS Steller sea lions and the Mexico DPS humpback whales. The USCG is also requesting Level A and Level B harassment authorization for additional ESA-unlisted marine mammal species and DPSs under the MMPA.

5.2.1 PROJECT-GENERATED NOISE

Demolition of the wharf and construction of the new waterfront infrastructure will introduce noise from project vessels and in-water pile installation and removal. This heightened noise could alter the behavior of individual marine mammals, including feeding, foraging, migration, hearing, and communication. Although unlikely, auditory injuries could result from prolonged exposure to elevated impulsive sound or from an instantaneous exposure to a high-level impulse.

Underwater sound pressure levels (SPLs) are measured in dB referenced to (re) 1 micro-Pascal (μPa). All underwater SPLs used in this analysis are presented in dB re 1 μPa unless otherwise noted. Hydroacoustic studies of underwater sound sources typically report the SPLs as the instantaneous peak dB level (dB peak) or the root-mean-square (rms) level. They may also include the single-strike sound exposure level (SEL_{ss}), which is referenced to 1 μPa squared per second (re 1 $\mu\text{Pa}^2\text{s}$). NMFS specifies behavioral response thresholds (i.e., the received level) in dB rms, auditory injury thresholds in peak SPL, and cumulative sound exposure level (SEL_{cum}), which is a measure of total energy received during pile driving activity over the course of a day.

Vessel Noise

Background underwater noise in the action area primarily reflects continuous waterborne sound generated by marine vessel traffic. Juneau Harbor records approximately 6,300 large-vessel transits annually (USCG 2021). In 2025, more than 650 cruise vessel arrivals were scheduled (Cruise Line Agencies of Alaska 2025), and Juneau saw 1.7 million passengers, its highest number of cruise ship passengers ever recorded (City and Borough of Juneau 2026). Underwater background noise levels near USCG Station Juneau are anticipated to range from 120 to 130 dB, with seasonal peaks during summer (HDR Inc. 2018, as cited in USCG 2021).

Vessel traffic will temporarily increase in the project action area during demolition and construction activities. This assessment anticipates up to two tugs, two derrick barges, two material barges, and two skiffs operating during the project. Except for the project mobilization and demobilization, the project vessels will remain relatively stationary throughout the day, with short transits and movements as demolition and construction progress and during dredging. Additional tug-and-barge transits are likely throughout the project timeline as materials are shipped to the site. Relative to the already significant vessel traffic in Juneau Harbor, the temporary increase in vessel noise will be negligible.

Reported source levels for tugboats and other medium-sized vessels range from 165 to 175 dB rms (Veirs et al. 2016), and for small vessels (e.g., skiffs) range from 141 to 175 dB rms (Galli et al. 2003; Matzner & Jones 2011; Sebastianutto

et al. 2011, as cited in USCG 2021); however, these measurements generally reflect vessels operating at maximum speeds. Richardson et al. (1995) reported that SPLs measured 50 meters (164 feet) from small ships (55 meters [180 feet] to 85 meters [279 feet] in length) at cruising speed ranged from approximately 106 to 145 dB rms, with frequencies from 20 hertz (Hz) to 1,000 Hz. Larger vessels, measuring between 135 meters (443 feet) and 219 meters (719 feet), were reported to produce underwater SPLs ranging from 169 to 181 dB rms at 1 meter.

Vessels supporting the project will operate at speeds of 13 knots or less, allowing animals time to respond to approaching vessel noise. Vessel speeds in the immediate vicinity of the construction area will be 10 knots or less. At these reduced speeds, construction vessel noise is expected to be comparable to local background levels. In addition to behavioral responses from noise, vessel strikes have been documented to cause injury or death in marine mammals in Alaska, including northern sea otters, Steller sea lions, humpback whales, and fin whales. Most vessel strikes result from vessels less than 49 feet long, and most occur at speeds greater than 13 knots (USCG 2021). Vessel operators associated with the project will implement mitigation measures, including whale approach and avoidance guidelines and avoidance of Steller sea lion haulouts and critical habitat areas. As a result, the risks of physical injury from vessel strikes or behavioral disturbance from vessel noise during construction are low.

USCG Station Juneau is active and currently receives regular visits from USCG cutters, buoy tenders, and NOAA research vessels. Operational noise from the homeporting of the USCG cutters, buoy tenders, and NOAA research vessels will contribute to the overall noise environment in Juneau Harbor. The USCG vessels transiting through Gastineau Channel will typically not travel at maximum speeds, except to respond to emergencies.² The USCG has undertaken a separate programmatic ESA consultation addressing vessel operations in Alaska and Arctic waters and the impacts on protected marine species from these activities. Additionally, the USCG has issued directives ensuring that actions carried out by USCG vessels and aircraft are not likely to jeopardize the continued existence, taking, or harassment of any animal subject to the protection of the MMPA and ESA. The directives include whale-avoidance procedures that require appropriate alertness, caution, and reduced speed when transiting critical habitat, migratory routes, and high-use areas (NOAA Fisheries 2024b). The USCG has also initiated a separate programmatic ESA consultation addressing vessel operations in Alaska and Arctic waters (such as cutters that may homeport or visit USCG Station Juneau) and the impacts on protected marine species from these activities (USCG 2026; NOAA Fisheries 2020).

If noise levels from project vessels surpass background levels, affected animals are expected to make minor deviations from the noise source, exhibiting low-level avoidance, short-term vigilance, and masking behaviors. These responses are unlikely to significantly affect ESA-listed species, as their nature and duration are not expected to disrupt essential behaviors such as feeding or resting. In a recent consultation for the Auke Bay Ferry Terminal, NOAA Fisheries (2023c) concluded that project vessel noise may cause short-term, low-level exposures. However, they will not likely result in adverse consequences. Moreover, the project vessels will follow existing regulations and mitigation measures described in Section 2.4 to reduce harmful interactions, largely prevent close encounters, and reduce exposure to loud vessel noise. Consequently, the impact of vessel noise on all ESA-listed species is considered negligible, short-term, and comparable to background noise within the action area.

Construction Noise

All pile removal and installation methods planned for the project may produce underwater sound levels that could disturb marine mammals at various distances. The noise from impact pile driving and DTH drilling can exceed the NMFS thresholds for auditory injury. However, the likelihood of auditory injury resulting from exposure to impact pile driving or DTH drilling is low. Behavioral responses from construction noise may include auditory masking (interference); habituation; changes in dive time, respiration, feeding, or vocalizations; avoidance of or displacement from an area; vigilance; startling; or fleeing.

² While the USCG trains and prepares to respond to emergency situations, the emergency response itself is not part of the proposed action.

Direct information on humpback whale hearing is not available. However, NMFS classifies the species within the low-frequency cetacean hearing group, with an estimated hearing range of about 7 Hz to 35 kilohertz (kHz). Researchers have also suggested that large baleen whales may have particularly strong infrasonic hearing, based on the structure of their auditory systems. Overall, humpback whale inner ear anatomy appears specialized for detecting low-frequency sound. Humpbacks produce a wide range of vocalizations, roughly from 20 Hz to 24 kHz. On wintering grounds, males produce long, complex songs that can last up to 20 minutes and may travel as far as 20 miles. These songs have average source levels of about 155 dB, with reported levels ranging from 144 to 174 dB. In summer feeding areas, humpbacks vocalize less often, but feeding groups produce distinctive lower-frequency sounds ranging from 20 Hz to 2 kHz. These feeding sounds are relatively brief, with median durations of 0.2 to 0.8 seconds, and have high source levels of about 175 to 192 dB. Available research indicates that these sounds may help attract other whales and coordinate feeding activity (NOAA Fisheries 2023c). Project pile driving noise will be within the humpback whale's estimated range of hearing.

Steller sea lions' ability to detect sound and communicate underwater is important for reproduction, predator avoidance, and other life functions. NMFS classifies Steller sea lions within the otariid functional hearing group, with an estimated auditory bandwidth of 60 Hz to 39 kHz underwater and 75 Hz to 30 kHz in air (Southall et al. 2007; NOAA Fisheries 2024c). Studies indicate that Steller sea lions detect underwater sounds from approximately 1 to 25 kHz (Kastelein et al. 2005, as cited in NOAA Fisheries 2023c) and airborne sounds from about 0.25 to 30 kHz (Mulsow and Reichmuth 2010, as cited in NOAA Fisheries 2023c). Sound from the in-water activities associated with the proposed action falls within the hearing range of Steller sea lions.

Project noise may impact marine mammals in several ways. These include auditory impairments such as temporary threshold shift and permanent threshold shift (PTS), as well as auditory injury; however, the probability of these more harmful impacts is low. Other physical and physiological effects, such as stress or distress, and behavioral responses, such as changes in vocalizations, startle responses, longer dive times, abandonment of feeding areas, and auditory interference (i.e., masking) may occur. These impacts may result from noise produced by vessels and the installation and removal of piles.

In-Air Construction Noise

For Level B (behavioral) harassment, NMFS applies airborne noise exposure thresholds of 90 dB re 20 μ Pa rms for harbor seals and 100 dB re 20 μ Pa rms for all other pinnipeds (including Steller sea lions) (NOAA Fisheries 2023a). NMFS has also established acoustic thresholds for the onset of auditory injury in marine mammals exposed to impulsive and continuous in-air sound sources (Table 4). Exposure to noise exceeding the peak SPL or SEL_{cum} thresholds constitutes Level A harassment under the MMPA.

Impact pile driving may generate an airborne sound level of approximately 110 dB re 20 μ Pa rms, which exceeds the Level B harassment threshold (100 dB re 20 μ Pa) for Steller sea lions, but does not exceed the impulsive airborne noise Level A threshold for otariids (177 dB peak; Table 4). The airborne noise source levels for DTH drilling, vibratory pile installation, and removal are expected to be lower than those of impact pile driving.

Pinnipeds hauled out onshore may react to loud sounds, causing startle or flight responses, such as moving into the water, which can lead to disturbance or injury. However, the nearest known Steller sea lion haulouts are approximately 27 kilometers (17 miles) from the project location (Alaska Fisheries Science Center 2026). Given the distance to the nearest haulout and the limited spatial extent of elevated airborne sound, airborne impact pile driving noise is unlikely to cause behavioral disturbance to Steller sea lions. Should an individual or small group of Steller sea lions choose to haul out on rocky areas, beaches, or docks within the action area, the shutdown zones for underwater noise will apply, preventing exposure to airborne noise above the thresholds described above.

Table 4. Underwater and In-Air Auditory Injury Onset Criteria for Humpback Whales and Steller Sea Lions

HEARING GROUP	IMPULSIVE	CONTINUOUS
Underwater		
Low-Frequency Cetaceans (humpback whales)	222 dB peak 183 dB SEL _{cum}	197 dB SEL _{cum}
Otariid Pinnipeds (Steller sea lions)	230 dB peak 185 dB SEL _{cum}	199 dB SEL _{cum}
In Air		
Otariid Pinnipeds (Steller sea lions)	177 dB peak 163 dB SEL _{cum}	177 dB SEL _{cum}

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

dB peak has a reference value of 1 μ Pa (underwater) and 20 μ Pa (in air), and dB SEL_{cum} has a reference value of 1 μ Pa²s (underwater) and 20 μ Pa²s (in air).

Source: NOAA Fisheries 2023a

Underwater Construction Noise

In addition to the in-air noise thresholds, NMFS developed underwater acoustic thresholds to determine the onset of auditory injury in marine mammals from impulsive and continuous sound sources. NMFS further delineated the thresholds by marine mammal hearing groups, categorized by their general hearing range (Table 4). Note that the term “auditory injury” replaces the previously used (and less comprehensive) term PTS in the most recent guidance (NOAA Fisheries 2024c). This assessment uses acoustic thresholds for auditory injury to estimate the potential number of Level A exposures for humpback whales and Steller sea lions resulting from the project activities.

Although received sound level is the primary driver of behavioral disturbance, responses to anthropogenic noise also vary with source characteristics, environmental conditions, and animal-specific factors, making effects difficult to predict (Southall et al. 2007; Ellison et al. 2012). To provide a consistent and measurable approach, NMFS developed generalized interim thresholds to estimate the onset of Level B behavioral harassment: 120 dB rms for continuous or non-impulsive sources and 160 dB rms for impulsive or intermittent sources (NOAA Fisheries 2023a). This assessment applies these thresholds to estimate the potential number of Level B harassment exposures of humpback whales and Steller sea lions from the project activities.

In proximity, continuous noise from vibratory pile driving can exceed auditory injury thresholds. However, the proposed shutdown zones for vibratory pile driving are larger than the calculated Level A harassment zones. As such, the USCG does not anticipate Level A harassment of listed species from exposure to vibratory pile installation or removal. Source levels for vibratory pile installation and removal will exceed the behavioral response threshold for continuous noise (120 dB rms); therefore, Level B harassment may occur during these operations.

Impulsive noise from impact pile driving may cause behavioral disturbance, a temporary reduction in hearing ability (Level B harassment), or potentially auditory injury (Level A harassment). Auditory injury is possible from instantaneous exposure to the peak SPL at close range, or from exposure to repeated impulsive noise over a longer duration at greater distances. The calculated Level A harassment isopleths are based on the SEL_{cum}, which accounts for exposure duration and assumes an animal could remain within the ensonified area for the entire duration of each pile installed via the method over the course of the day. In essence, the zones increase in size with each successive impulse over one or more piles. However, PSOs will monitor during pile installation and enforce shutdown zones if marine mammals are sighted within or approaching the zones. In practice, it would be unlikely that an animal would remain undetected within a Level A harassment zone for the entire duration, especially over multiple pile installations. Therefore, the risk of actual auditory injury to marine mammals from pile driving is low. However, out of caution, the USCG is requesting a small number of Level A takes of wDPS Steller sea lions and Mexico DPS humpback whales (Section 6).

The various inputs (e.g., exposure duration and distance) used to calculate the Level A harassment isopleths also complicate determining whether an animal has likely sustained an auditory injury. The PSOs will not make the determination in the field; rather, they will report sightings of marine mammals within the applicable zones as potential Level A exposures. Further review by NMFS may be required if the number of reported Level A exposures approaches or exceeds the total number of incidental Level A takes authorized.

5.2.2 UNDERWATER NOISE EXPOSURE ANALYSIS

The project description in Section 2 provides conservative predictions and estimates based on the best available information at this time. As the methods and means of construction are refined through the design-build process, the USCG does not anticipate that the final configuration will result in greater impacts than those analyzed within this assessment. If the design-build contractor proposes substantial changes, the USCG will coordinate with NMFS.

Of the potential wharf configurations, analysis of the harassment zones and durations concluded that a pile-supported wharf will result in more takes and potentially affect more species than a sheet pile bulkhead wharf. Therefore, the pile-supported wharf design (in addition to the other project components) is used in this assessment for consultation under the ESA and in the application for Incidental Harassment Authorization (IHA) under the MMPA.

As previously described, the project duration or number of strikes for each pile, the number of piles per day, and the sound intensity are variables that determine the Level A isopleths for pile driving. To avoid underestimating the size of Level A isopleths, this assessment conservatively assumes a plausible upper bound for the number of piles installed and removed each day. Furthermore, until geotechnical investigations are complete, the percentage of steel or concrete piles requiring DTH drilling (if any) is unknown. Underwater continuous sound from DTH drilling results in the largest Level B harassment zones relative to vibratory or impact hammering of similarly sized piles. Therefore, this assessment assumes half of all permanent steel pipe and concrete piles will require DTH, and that up to two piles per day will be installed in this manner.

With minor exceptions, this assessment uses sound source levels (SSLs) published in *Proxy Recommendations for Southeast Alaska* (NOAA Fisheries 2023d) and *Acoustic Guidance for Assessment of Down-the-Hole (DTH) Systems* (NOAA Fisheries 2022b) to calculate Level A and Level B harassment isopleths for each pile size, type, and installation method (Table 5). Additional sources were used to account for noise generated during pile cutting and removal activities (pile clipper, hydraulic chainsaw, and diamond wire saw; Naval Facilities Engineering Command [NAVFAC SW] 2020), and for DTH drilling of 48-inch piles (86 FR 12411). The proxies selected are the best available data for SSLs for the same size and type of pile and installation method (Table 5).

Table 5. Estimates of Underwater Sound Source Levels for Vibratory, Impact, and DTH Pile Installation and Vibratory Pile Removal

METHOD AND PILE TYPE	SOUND SOURCE LEVEL AT 10 METERS		
12- to 16-Inch Timber Pile Removal	dB rms		
Vibratory extraction	162		
Hydraulic chainsaw	151		
Pile clipper	153.8		
Diamond wire saw	162		
Vibratory Hammer	dB rms		
24-inch concrete	163		
24-inch steel sheet	160		
24-inch steel pipe	163		
30-inch steel pipe	166		
36-inch steel pipe	166		
42-inch steel pipe	170		
48-inch steel pipe	171		
Impact Hammer	dB peak	dB rms	SEL_{ss}
24-inch concrete	188	176	166
24-inch steel sheet	205	190	180
24-inch steel pipe	203	190	177
30-inch steel pipe	210	190	177
36-inch steel pipe	210	193	183
42-inch steel pipe	213	192	179
48-inch steel pipe			
60-inch steel pipe	210	192	185
DTH Drilling	dB peak	dB rms	SEL_{ss}
24-inch steel or concrete	184	167	159
30-inch steel	194	174	164
36-inch steel			
42-inch steel			
48-inch steel*	N/A	166.2	168

Notes:

*No peak-level measurement was available for 48-inch DTH drilling. NMFS extrapolated from other studies to estimate the dB rms and SEL_{ss} in 89 FR 12411.

Source: NOAA Fisheries 2022b; NAVFAC SW 2020; 86 FR 12411

Harassment and Shutdown Zones

Sound propagation and Level A harassment isopleths were estimated using NMFS’s current technical guidance (NOAA Fisheries 2024c) and the User Spreadsheet Tool supplied with this guidance. The NMFS-preferred default transmission loss coefficient of 15 Log (practical spreading loss) is used in acoustic calculations. The estimates apply the SSLs, duration or number of strikes, number of piles per day, transmission loss, and functional hearing group weighting factors to calculate distances to the auditory injury threshold. For impact hammering, the single-strike cumulative sound exposure level method, which yields the largest isopleths, was conservatively selected. The number of strikes per pile, the installation duration, and the DTH strike rates were estimated based on similar recent projects

across Alaska. However, these estimates are for exposure assessment and are not intended to represent maximum limits or caps on activities. To allow operational flexibility, Level A harassment zones were calculated for more than one pile installation per activity within a day (e.g., impact of one to four piles per day; Table 6).

The USCG and its contractor will implement shutdown zones ranging from 50 to 1,000 meters (164 to 3,280 feet) from the noise source to the ESA-listed species for in-water pile installation or removal, depending on the estimated size of the Level A harassment zones (Table 6). Because the Level A harassment zones increase with duration or the number of strikes, they represent a theoretical maximum at which auditory injury could occur, if, for example, an animal remained at the outer edge of the zone for the entire duration of the activity. In general, it is unlikely that an ESA-listed species will remain within a Level A harassment zone undetected for the entire duration of an activity, especially throughout multiple pile installations within a day.

To estimate the Level B harassment isopleths, the 120 dB threshold for vibratory sources and the 160 dB threshold for impulsive sources were used (NOAA Fisheries 2023a). The radii of the Level B harassment zones were calculated as follows:

$$\text{Radius} = D * 10^{[(SSL-HT)/TL_c]}$$

Where:

D = the distance of the SSL measurement from the source,

SSL = the measured sound source level,

HT = the harassment threshold (i.e., 120 dB for continuous noise or 160 dB for impulsive noise), and

TL_c = the transmission loss coefficient.

Level B harassment zones were calculated for each potential activity (Table 6). The Level B harassment zones for the potential project activities are depicted in Figures A-1 and A-2 in Appendix A.

Table 6. Estimated Distances to Level A and B Harassment Isopleths and Shutdown Zones During Pile Installation and Removal

ACTIVITY	PILE SIZE AND TYPE	MINUTES PER PILE, STRIKES PER PILE, OR STRIKE RATE	ESTIMATED MAXIMUM NUMBER OF PILES PER DAY	LOW-FREQUENCY CETACEAN (HUMPBACK WHALE)		OTARIID PINNIPED (STELLER SEA LION)		ALL NMFS SPECIES ²
				Level A Zone (m) ¹	Shutdown Zone (m)	Level A Zone (m) ¹	Shutdown Zone (m)	Level B Zone (m)
Vibratory Extraction	12- to 16-inch Timber	10 minutes	1–25	28	50	12	50	6,310
			26–50	44		19		
Hydraulic Chainsaw		5 minutes	50	<1		<1		1,166
Pile Clipper			50	<1		1,792		
Diamond Wire Saw		15 minutes	30	4		2		6,310
Vibratory Hammer	24-inch concrete	60 minutes	4	32	50	14	50	7,356
	24-inch steel sheet	15 minutes	30	30		13		4,642
	24-inch steel pipe	60 minutes	4	32		14		7,356
	30-inch steel pipe	60 minutes	4	50		22		11,659
	36-inch steel pipe	60 minutes	4			22		6,000 ³ (11,659)
	42-inch steel pipe	75 minutes	3	89		38		6,000 ³ (21,544)
	48-inch steel pipe	75 minutes	3	103		45		6,000 ³ (25,119)
Impact Hammer	24-inch concrete	1,000 strikes	1	73	50	24	50	117
			2	116		38		
			3	152		50		
			4	184		61		
	24-inch steel sheet	200 strikes	1–3	447	50	148	50	1,000
			4–6	709	500	235		
			7–9	929		308		
			10–12	1,125		373		
		1,000 strikes	1	396	50	131	50	

ACTIVITY	PILE SIZE AND TYPE	MINUTES PER PILE, STRIKES PER PILE, OR STRIKE RATE	ESTIMATED MAXIMUM NUMBER OF PILES PER DAY	LOW-FREQUENCY CETACEAN (HUMPBACK WHALE)		OTARIID PINNIPED (STELLER SEA LION)		ALL NMFS SPECIES ²	
				Level A Zone (m) ¹	Shutdown Zone (m)	Level A Zone (m) ¹	Shutdown Zone (m)	Level B Zone (m)	
	24-inch steel pipe		2	629	500	208			
			3	824		273			
			4	998		331			
	30-inch steel pipe	1,000 strikes	1	396	50	131	50		
			2	629	500	208			
			3	824		273			
			4	998		331			
	36-inch steel pipe	1,500 strikes	1	1,304	500	432	50	1,585	
			2	2,070	1,000	685	500		
			3	2,712		898			
			4	3,285		1,088			
	42-inch steel pipe	1,500 strikes	1	706	500	234	50	1,359	
			2	1,120		371			
			3	1,468		486			
	48-inch steel pipe	1,800 strikes	1	797	500	264	50		
			2	1,265		419			
			3	1,657	1,000	549	500		
DTH Drilling	24-inch steel	120 minutes / 10 strikes per second	1	433	50	143	50	13,594	
			2	687	500	227			
	30-inch steel	120 minutes / 10 strikes per second	1	932	500	309	50	6,000 ³ (39,811)	
			2	1,479		490			
	36-inch steel	150 minutes / 10 strikes per second	1	1,081	500	358	50		
			2	1,717	1,000	568	500		
	42-inch steel	180 minutes / 10 strikes per second	1	1,221	500	404	50		
			2	1,938	1,000	642	500		

ACTIVITY	PILE SIZE AND TYPE	MINUTES PER PILE, STRIKES PER PILE, OR STRIKE RATE	ESTIMATED MAXIMUM NUMBER OF PILES PER DAY	LOW-FREQUENCY CETACEAN (HUMPBACK WHALE)		OTARIID PINNIPED (STELLER SEA LION)		ALL NMFS SPECIES ²
				Level A Zone (m) ¹	Shutdown Zone (m)	Level A Zone (m) ¹	Shutdown Zone (m)	Level B Zone (m)
	48-inch steel	180 minutes / 10 strikes per second	1	2,257	1,000	747	500	6,000 ³ (12,023)
			2	3,582		1,186		

Notes:

m = meter

Source: NOAA Fisheries 2023a

¹This assessment uses the NMFS User Spreadsheet Tool that accompanies the 2024 Technical Guidance (NOAA Fisheries 2024c) to calculate Level A isopleths. The default weighting factor adjustment values were used along with tabs A) Non-Impulse-Stat-Cont (hydraulic chainsaw, pile clipper, and diamond wire saw), A.1) Vibratory Pile Driving, E.1) Impact Pile Driving, and E.2) DTH Systems. The SEL_{ss} and dB rms in Table 5 were used for impulsive (impact and DTH) and continuous noise sources, respectively.

²The Level B harassment zones apply to all marine mammals under NMFS management. The USFWS uses a 160 dB rms Level B harassment threshold for impulsive and continuous in-water sound sources. Therefore, the Level B zones for continuous sound sources will be different for sea otters.

³Permanent piles larger than 24 inches in diameter are only expected to be installed for the trestle, floating pier, and covered mooring. The locations of these features on the eastern side of the project results in landforms restricting sound transmission beyond approximately 6,000 meters.

Based on current engineering estimates, the USCG anticipates that permanent piles 30 inches or larger in diameter will only be used to construct the access trestle and floating pier. These features are located on the eastern side of the project footprint, where landforms limit sound transmission to approximately 6,000 meters. The western half of the wharf is more exposed to Gastineau Channel, and underwater sound is less restricted in this location. However, the engineering estimate does not anticipate permanent wharf piles to exceed 24 inches in diameter. The design may require installation and removal of temporary piles up to 30 inches in diameter with a vibratory hammer on the western side of the project. DTH drilling and impact hammering are generally not required for temporary piles. Therefore, the maximum anticipated Level B harassment zone for the project (13,594 meters) will result from DTH drilling of 24-inch permanent piles for the wharf or fenders on the project's southwest side. Figures depicting the anticipated Level B harassment shutdown zones for work on the east and west sides of the project are provided in Appendix A. Figure A-1 shows the Level B harassment zones for the western portion of the wharf, where underwater sounds will be less restricted by landforms. Figure A-2 displays the zones for the eastern portion of the wharf and remaining project components, where the Level B harassment zones will terminate no more than approximately 6,000 meters from the installation location due to restrictions by landforms. Figure A-3 shows the shutdown zones for all activities listed in Table 6.³

Estimated Level B Exposures

To estimate Level B exposures, this assessment determined the largest anticipated Level B harassment zone for each project component and construction period. Because landforms will restrict construction noise from work on the eastern side of the project to 6,000 meters, this analysis separates the planned work at the eastern and western portions of the wharf, even though they are contiguous. The trestle, floating pier, and covered mooring are all on the eastern side of the project. The duration of the project's in-water noise-generating activities is approximately 355 days. Table 7 lists the project components, durations, and expected maximum Level B harassment zones for each period.

³ Level A harassment zones are not depicted in these figures because the project design and construction methods are not yet fully finalized, resulting in a large number of potential Level A zone configurations across pile sizes, installation methods, and hearing groups. Given this variability (dozens to hundreds of potential zones), presenting all Level A zones graphically was not considered useful for interpretation or field implementation. Instead, mitigation is implemented through the designated shutdown zones shown in Figure A-3, which are designed to avoid Level A (injury) take. The figures therefore focus on Level B harassment zones for exposure context and shutdown zones for operational clarity and implementation by protected species observers.

Table 7. Project Components, Activities, Maximum Level B Harassment Zones, and Durations

PROJECT COMPONENT	ACTIVITY	MAXIMUM LEVEL B ZONE (M)	DURATION
Year 1			
Wharf Demolition	Timber pile vibratory removal and cutting.	6,000 – 6,310	Up to 75 days of demolition activities.
Year 2			
Western Half of Wharf Construction	DTH drilling of 24-inch piles.	13,594	Up to 58 days DTH drilling on the west side of the wharf, assuming one pile per day for 50% of the west side wharf and fender piles.
	Vibratory installation and removal of 30-inch temporary piles.	11,659	Up to 32 days of vibratory installation/removal of 30-inch temporary piles on the west side of the wharf.
Eastern Half of Wharf Construction	DTH drilling of 24-inch piles, vibratory installation and removal of 30-inch temporary piles.	6,000	Up to 90 days of activities on the east side of the wharf that could result in the maximum (6,000-meter) Level B zone.
Trestle, Floating Pier, and Covered Mooring	DTH drilling of 24- to 48-inch piles, vibratory installation and removal of 30-inch temporary piles.	6,000	Up to 100 days of activities on the east side of the project that could result in the maximum (6,000-meter) Level B zone.

Notes:

m = meter

The Level B harassment zones for other potential activities during construction of the western portion of the wharf, such as vibratory installation of 24-inch concrete or steel piles (7,356 meters), or vibratory installation of sheet piles (4,642 meters), will result in a lower likelihood of exposure. Although they may occur on the same days as the activities listed in Table 7, they will not be additive to the calculated exposure risk under the methods described.

The largest Level A harassment zone for humpback whales (3,582 meters) and Steller sea lions (1,186 meters) will result from DTH drilling of up to two 48-inch piles in a day. Impact pile driving of up to four 36-inch steel piles also results in similarly large Level A harassment zones (3,285 and 1,088 meters respectively). DTH drilling of up to two piles 30 inches or larger also results in relatively large Level A harassment zones. Because the frequency of these installation methods will not be known until the geotechnical investigation and design are complete, it is not possible to reasonably predict the number of days required to calculate Level A exposures. Therefore, a qualitative assessment of the number of Level A exposures is discussed in Section 6.

Species Occurrence in Level B Harassment Zones

The available data on humpback whale and Steller sea lion occurrence in Gastineau Channel is limited. Estimated densities for large areas, such as the North Pacific, are not suitable because of the high variability in density at specific inlets in Southeast Alaska. There is marine mammal information from a few marine construction and research projects in nearby Auke Bay, Statter Harbor, and Fritz Cove to inform this assessment; however, the local bathymetry and habitat differ substantially from those of Gastineau Channel.

The Auke Bay area is thought to have certain habitat features that concentrate prey and attract foraging humpback whales and Steller sea lions (83 FR 52394). Although the action area in Gastineau Channel is only about 15 kilometers (9 miles) away from Auke Bay in a straight line, it is about 57 kilometers (35 miles) by sea circumnavigating Douglas

Island. A similar characterization of desired habitat features could not be found for Gastineau Channel, indicating it is unlikely to attract a comparable abundance of marine mammals. In addition, Gastineau Channel does not appear to have substantial submerged aquatic vegetation (e.g., no eelgrass; Harris et al. 2008). Though forage fish such as herring and salmon are seasonally present in Gastineau Channel (NOAA Fisheries n.d.), the salmon streams are relatively minor (ADF&G n.d.-b), and overall productivity is likely to be lower in the industrialized harbor, relative to Auke Bay. In an analysis for another recent project, NMFS affirmed that the Juneau Harbor is not considered a feeding area of marine mammals (84 FR 7880).

The entrance to Gastineau Channel from Stephens Passage is approximately 15 kilometers (9.3 miles) from the project location. The water depth in Stephens Passage near the entrance to Gastineau Channel is approximately 150 meters (500 feet) and decreases to approximately 30–40 meters (100–130 feet) for about 80% of the channel's length before reaching the harbor. Waterfront developments, such as harbors, freight and cruise ship docks, boardwalks, and bridges, are more dense closer to downtown Juneau. Recreational and commercial vessel traffic is also likely to be more prevalent near the harbors.

Steller Sea Lions

As previously described in Section 3.1.1, most adult Steller sea lions occupy rookeries during the summer pupping and breeding season (mid-May through July). During this period, the presence of Steller sea lions in the action area will likely be limited to juveniles and non-breeding adults, because no rookeries are near the project action area. After breeding, Steller sea lions disperse and shift from rookeries to haulouts during fall and winter (Jemison et al. 2018). There are two known Steller sea lion haulout locations within approximately 8 miles of the entrance of Gastineau Channel at Circle Point in Stephens Passage and Dorothy (Point) in Taku Inlet (Section 3.1.1; Figure 4); but they are not considered “major” haulouts under 50 CFR § 226.202.

Relatively few Steller sea lions are sighted near Douglas Harbor or within Juneau Harbor; however, some are sighted near the Macaulay Salmon Hatchery during seasonal salmon returns (Jenniges, J., personal communication, 6 January 2026), indicating they pass through the area. Therefore, this analysis does not anticipate large rafts or herds of Steller sea lions occurring near the harbor, as reported in and near Auke Bay (89 FR 2584). Because much of the in-water work is expected to occur in spring, summer, and fall when salmon smolt outmigration or salmon returns are expected, this assessment assumes up to three Steller sea lions per day may transit through the Juneau Harbor during construction. Because of the known haulouts relatively near to the entrance of Gastineau Channel, and the overall area ensonified by the larger Level B harassment zones, this analysis assumes up to six Steller sea lions per day may be present between the harbor and the middle portion of Gastineau Channel, and up to 15 per day may be present between the harbor and the entrance (Table 8).

Humpback Whales

Group size of humpback whales in Southeast Alaska generally ranges from one to four individuals (Dalheim et al. 2009; Zerbini et al. 2025), with abundance increasing in the summer and fall. However, there is high variability at specific inlets and harbors throughout the convoluted waters of the Inside Passage (89 FR 2584). The Auke Bay (89 FR 2584) and Statter Harbor (83 FR 52394) marine construction projects used mean group sizes of four and two, respectively, to estimate Level B exposure. Juneau residents and local mariners report occasional humpback whale sightings in Juneau Harbor (Humpback in Gastineau Channel 2017; happywhale.com n.d.). A review of the sightings from 2020 to 2025 reported within and near Gastineau Channel on happywhale.com found four humpback whales near the Macaulay Salmon Hatchery, 13 within or near Juneau Harbor, three in the mid-channel, and 33 near the entrance at Stephens Passage (53 total) over the six-year period. Group sizes ranged from one to eight whales, with the largest groups (5 or more) sighted in Stephens Passage. All sightings in the mid-channel, Juneau Harbor, and near the hatchery were of one humpback whale, except one group of three was sighted near the hatchery, and one group of two was sighted in the harbor (happywhale.com n.d.).

These data are collected and reported opportunistically, not systematically, so they cannot be used to determine seasonal or regional density. However, they support this assessment's conclusion that larger and more frequent

groups are anticipated near the entrance to Gastineau Channel than in the harbor. Therefore, this assessment assumes two groups of two humpback whales per month may occur in the shallower waters near the harbor, and 10 groups of four per month may occur near the entrance to Gastineau Channel.

Exposure Summary

Because of the wide range of possible Level A and Level B harassment zones, this assessment divides estimated species occurrence into regions of 0 to 3,000 meters (Juneau Harbor), 0 to 7,500 meters (Mid-Gastineau), and 0 to 13,594 meters (Gastineau Entrance/Stephens Passage). This approach accounts for the expected gradient in species density in Gastineau Channel between Stephens Passage and Juneau Harbor, and the probability that more animals will be exposed when Level B harassment zones is larger. Table 8 lists the estimated numbers of individual Steller sea lions and the group sizes of humpback whales occurring within each region per day or per month for the exposure analysis.

Table 8. Estimated Number of Steller Sea Lions and Humpback Whales in the Action Area

SPECIES	NUMBER PER SPECIES PER DAY OR MONTH			SUPPORT FOR SPECIES OCCURRENCE ASSUMPTIONS
	Juneau Harbor (0 – 3,000 m)	Mid-Gastineau (0 – 7,500 m)	Gastineau Entrance/Stephens Passage (0 – 13,594 m)	
Steller sea lion	3 per day	6 per day	15 per day	Seasonal presence of forage species (salmon) at Macaulay Salmon Hatchery and anadromous streams. Haulouts in Stephens Passage and Taku Inlet. However, infrequent sightings in Juneau Harbor based on personal communication with ADF&G marine mammal biologist and 15-year Juneau resident J. Jenniges.
Humpback whale	1 group of 2 per month	2 groups of 2 per month	10 groups of 4 per month	Opportunistic/anecdotal sightings in Juneau Harbor and Gastineau Channel. Dalheim et al. (2009) noted regular occurrence in Stephens Passage and Taku Inlet, and they often feed in groups.

Notes:

m = meter

Source: Jenniges, J., personal communication, 6 January 2026; Dalheim et al. 2009

To summarize the information in Table 7, the project’s in-water activities may ensnare Level B harassment zones exceeding 7,500 meters for up to three months, and may ensnare zones up to 6,310 meters for approximately nine months. Young et al. (2024) estimate that 1.4% of Steller sea lions near the action area are from the wDPS. Wade (2021) reports that 2.4% of humpback whales in Southeast Alaska are from the Mexico DPS. Combining the data presented in Table 7 and Table 8, the Level B exposure estimates for Steller sea lions and humpback whales are presented in Table 9 and Table 10, respectively.

Table 9. Estimated Level B Exposures of wDPS Steller Sea Lions

PROJECT PHASES	APPROXIMATE DURATION (DAYS)	LARGEST LEVEL B ZONES (M)	STELLER SEA LION OCCURRENCE	ESTIMATED STELLER SEA LION LEVEL B EXPOSURES		
				Total	eDPS (98.6%)	wDPS (1.4%)
Year 1						
Wharf Demolition	75	6,000 – 6,310	6 per day	450	444	6
Year 2						
Western Half of Wharf Construction	90	11,659 – 13,594	15 per day	1,350	1,331	19
Eastern Half of Wharf Construction Trestle, Floating Pier, and Covered Mooring	190	6,000 – 6,310	6 per day	1,140	1,124	16
			Totals:	2,940	2,899	41

Notes:

m = meter

Table 10. Estimated Level B Exposures of Mexico DPS Humpback Whales

PROJECT PHASES	APPROXIMATE DURATION (MONTHS)	LARGEST LEVEL B ZONES (M)	HUMPBACK WHALE OCCURRENCE	ESTIMATED HUMPBACK WHALE LEVEL B EXPOSURES		
				Total	Hawai'i DPS (97.6%)	Mexico DPS (2.4%)
Year 1						
Wharf Demolition	2.5	6,000 – 6,310	2 groups of 2 per month	10	10	0
Year 2						
Western Half of Wharf Construction	3	11,659 – 13,594	10 groups of 4 per month	120	117	3
Eastern Half of Wharf Construction Trestle, Floating Pier, and Covered Mooring	6.5	6,000 –6,310	2 groups of 2 per month	26	25	1
			Totals:	156	152	4

Notes:

m = meter

5.3 INTERDEPENDENT AND INTERRELATED ACTIONS AND CUMULATIVE EFFECTS

This analysis evaluates future federal actions related to the proposed action, including interdependent and interrelated actions. Interdependent actions are those that have no significant independent utility apart from the action that is under consideration, i.e., *other* actions would not occur “but for” this action. Interrelated actions are those that are part of a larger action and depend on that action for their justification, i.e., they would not occur “but for” the larger action.

The docking and homeporting of up to two major USCG cutters in Juneau is an interdependent action because it would not occur in Juneau but for the wharf's recapitalization and the construction of a new pier. Interrelated actions may include an increase in other federal vessel traffic (USCG, NOAA, maintenance/repair vessels), a small increase in

vehicular traffic during construction, and dredging/dredge spoil sites to support construction or the safe passage and mooring of vessels in the future. Wharf and pier upgrades may also shift federal vessel docking patterns by increasing use of Juneau Harbor and reducing use of adjacent facilities in Auke Bay and Statter Harbor, where federal vessels currently moor.

The cumulative effects definition for these ESA-listed species includes the effects of future state, Tribal, local, or private (non-federal) actions that are reasonably certain to occur in the action area. This analysis does not consider future federal actions that are unrelated (i.e., not interrelated or interdependent) to the proposed action because they will undergo separate consultation pursuant to Section 7 of the Act.

Increases in the Juneau population and corresponding increases in vessels may have cumulative effects in the action area, including increases in private vessel traffic, commercial and sport fishing/crabbing, whale watching trips, cargo ships, docks/harbors, water pollution, and environmental warming. This analysis reasonably foresees that unrelated other state, Tribal, local, or private activities, similar to those described in Section 4.3, will continue to occur within each action area. Other current and future marine construction projects in the Juneau area include the Goldbelt Corporation/Royal Caribbean port on the west side of Douglas Island, the Aurora Harbor rebuild project 1 mile north of downtown Juneau, and the development of another downtown cruise ship dock at Áak'w Landing adjacent to USCG Station Juneau by the Huna Totem Corporation.

Ecosystem-level cumulative impacts typically associated with the construction of new piers and wharves often include shading and habitat loss, seagrass bed degradation, shoreline hardening and alteration, and salmon migration barriers. However, this project will minimize most of these impacts because the existing shoreline is artificial/manufactured, does not contain shallow waters, does not have substantial seagrass, eelgrass, or other high-value habitats, and should not create salmon barriers. Other ecosystem-level cumulative impacts that may occur as a result of this project include increased acoustic disturbance to marine mammals (construction and increased vessel traffic), benthic ecosystem alteration (construction, permanent loss, dredging, vessel traffic), and water quality degradation (pollution, turbidity from construction, vessel traffic, and dredging).

Widespread environmental changes are occurring including altered ocean chemistry, reduced sea ice, sea level rise, increased atmospheric and ocean temperatures, and shifting precipitation patterns, which are expected to affect marine species through changes in life history patterns, overall viability, abundance, distribution, and migration timing (IPCC 2023). Although this analysis cannot quantify the specific magnitude of project-related effects on ESA-listed species, continued environmental changes are expected to increase extinction risk, particularly for species already at risk (Overland and Wang 2007; IPCC 2023; Salinger et al. 2013; Urban 2024).

6 Preliminary Take Assessment Under MMPA

For the homeporting construction in Juneau, under the MMPA, the USCG is requesting two 1-year authorizations for the harassment of Steller sea lions, humpback whales, and other non-ESA listed marine mammals incidental to underwater noise from pile installation and removal. The requested authorization periods are 1 June 2027 – 31 May 2028 and 1 June 2028 – 31 May 2029. The preliminary construction schedule includes approximately 75 days for wharf demolition in Year 1, and 280 days for construction of the wharf, trestle, floating pier, and covered mooring in Year 2. The wharf demolition will last approximately 75 days, with anticipated Level B harassment zones up to 6,310 meters. The remaining components will include approximately 90 days of construction with Level B harassment zones up to 13,594 meters, and 190 days with Level B harassment zones up to 6,000 meters. Therefore, most of the exposure to construction noise will occur in Year 2. Table 11 presents a summary of the estimated Level B exposures from the project by year, and the Level B takes the USCG will request under the MMPA.

Table 11. Estimated Numbers of Level B Exposure – Level B Takes by DPS and Year

PERIOD	STELLER SEA LIONS			HUMPBACK WHALES		
	Total	eDPS	wDPS	Total	Hawai'i DPS	Mexico DPS
Population ¹	86,145	36,308	49,837	14,191	11,278	2,913
Year 1	450	444	6	10	10	0
Year 2	2,490	2,455	35	146	142	4
Project	2,940	2,899	41	156	152	4

Notes:

¹ Population estimates for each DPS are described in Section 3.1.1. The total Steller sea lion population in the table is the sum of the eDPS and wDPS. The population estimates for the Hawai'i DPS and the Mexico DPS of humpback whales are based on winter counts in their respective breeding areas, and the total is the sum of the two.

Under the MMPA, the USCG will request 2,940 Level B takes of Steller sea lions and 156 Level B takes of humpback whales. Of these, an estimated 1.4% of Steller sea lions (41 individuals) may belong to the ESA-listed wDPS, and 2.4% of humpback whales (four individuals) may belong to the ESA-listed Mexico DPS.

The largest estimated Level A harassment zones for Steller sea lions (1,186 meters) and humpback whales (3,582 meters) will result if two 48-inch piles are installed via DTH drilling in a single day. Impact pile driving of up to four 36-inch steel piles also results in similarly large Level A harassment zones (3,285 and 1,088 meters, respectively). Until the project completes the geotechnical investigations and final design, this assessment cannot anticipate the number of days for each installation method. The USCG will implement mitigation measures such as requiring visibility of shutdown zones and ceasing activities if any marine mammal is in the zone applicable to their functional hearing group. Therefore, the likelihood that Steller sea lions or humpback whales will approach pile driving activity closely and remain undetected long enough to exceed the Level A threshold is low.

Despite the low likelihood, it is possible that an individual or small groups of Steller sea lions could enter the shutdown zones undetected; therefore, the USCG requests a small number of Level A takes of Steller sea lions, equal to five per month of project activity, or 60 total. Of these, 1.4% of the total, or one individual, may belong to the wDPS.

Due to their large size and visible blow, humpback whales are relatively easy to detect. However, they are also capable of long dives and can travel underwater a substantial distance before resurfacing. Therefore, out of caution, the USCG estimates two groups of two whales could enter the Level A harassment zone over the course of the project, and requests four Level A takes. Given the low percentage in Southeast Alaska (2.4%) and the low probability of any Level A takes of humpback whales, it is unlikely that any from the Mexico DPS will experience Level A harassment.

7 Determination of Effect Under ESA

The USCG determined that the construction of new facilities to homeport cutters in Juneau will not affect these ESA-listed species/stocks: short-tailed albatross, North Pacific right whale, fin whale, sperm whale, Western North Pacific DPS of humpback whale, or Eastern North Pacific Southern Resident stock of killer whale. Although these species are present in the GOA, their ranges typically do not include shallow inland waterways such as Gastineau Channel.

There is no designated critical habitat for the wDPS of Steller sea lions or the Mexico DPS of humpback whales within or near the project action area. **Therefore, the USCG determined the project will have no effect on critical habitat for the wDPS of Steller sea lions or the Mexico DPS of humpback whales.**

Dredging activities and vessel operations may cause minor, temporary disturbances to marine mammals. The dredge and vessel operators will monitor for marine mammals and will implement the mitigation measures described in Section 2.4. Therefore, the USCG concludes that dredging and vessel operation may affect, but are not likely to adversely affect the wDPS of Steller sea lions and the Mexico DPS of humpback whales. Additionally, the USCG determined that no effect will result for listed species from other project activities, such as repairing the retaining wall, installing utilities, and building new structures in upland areas.

The project may affect, and is likely to adversely affect the wDPS of Steller sea lions and the Mexico DPS of humpback whales. These species are known to occur within Gastineau Channel and the project action area, and the ESA-listed DPSs are known to exist in the waters of Southeast Alaska in small proportions. Their seasonal presence is expected to overlap with project activities, and they may enter MMPA Level A or Level B harassment zones during in-water pile installation or removal. For this reason, the USCG has requested Level A and Level B takes of these species under the MMPA for wharf demolition and the construction of the new wharf, trestle, floating pier, and covered mooring. The project may adversely affect individuals in each DPS by causing auditory injury, disturbance, avoidance, or displacement. The USCG will implement mitigation measures to minimize the effects on marine mammals. Specifically, the USCG will require contractors to enforce shutdown zones for all in-water activity to avoid auditory injury or other harmful impacts to marine mammals.

8 References

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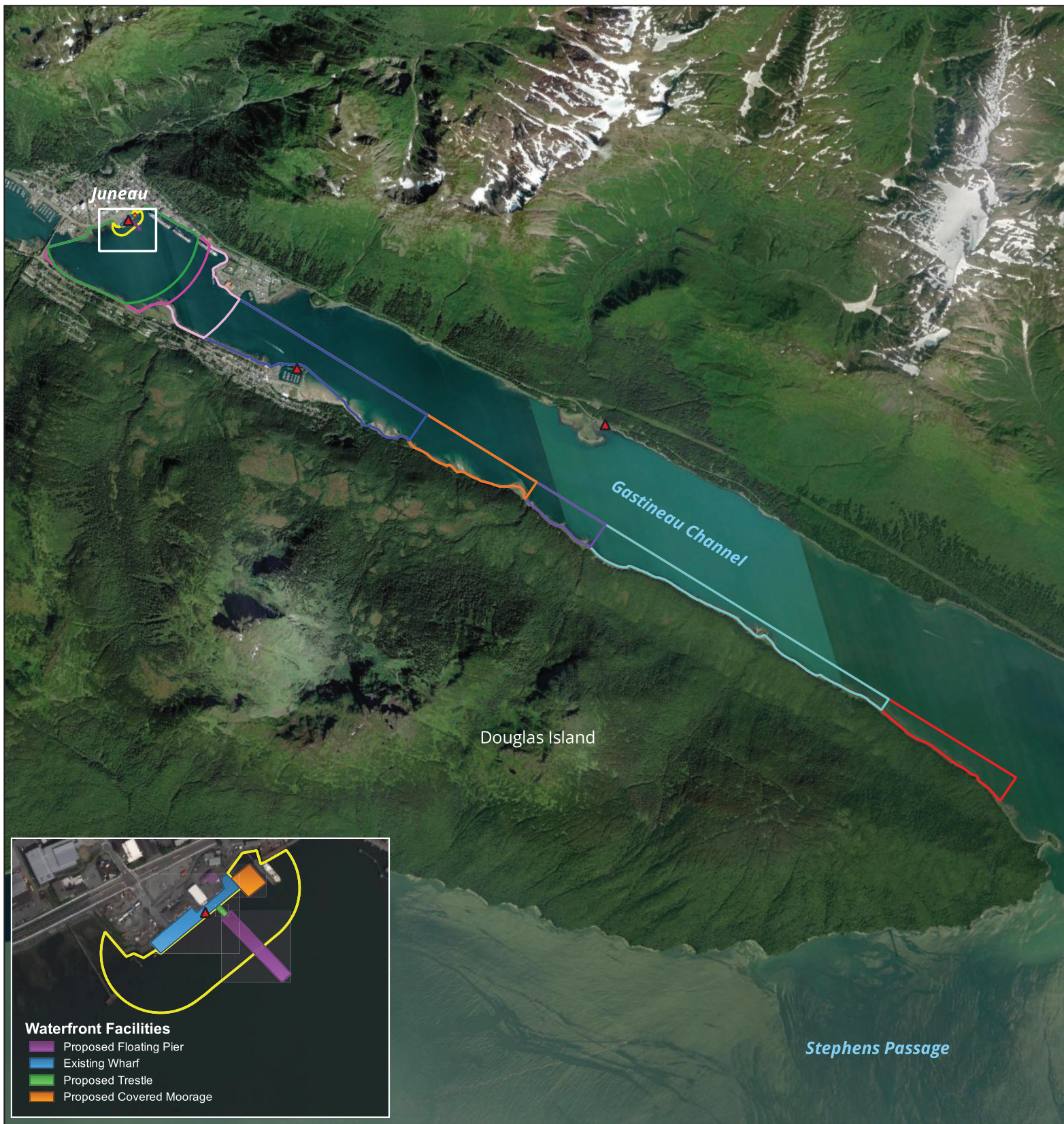
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APPENDIX A

LEVEL B HARASSMENT AND SHUTDOWN ZONE FIGURES

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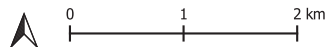


BIOLOGICAL ASSESSMENT FOR MAJOR CUTTERS HOMEPORTING

STATION JUNEAU, ALASKA

LEVEL B HARASSMENT ZONES

Western Side of Wharf



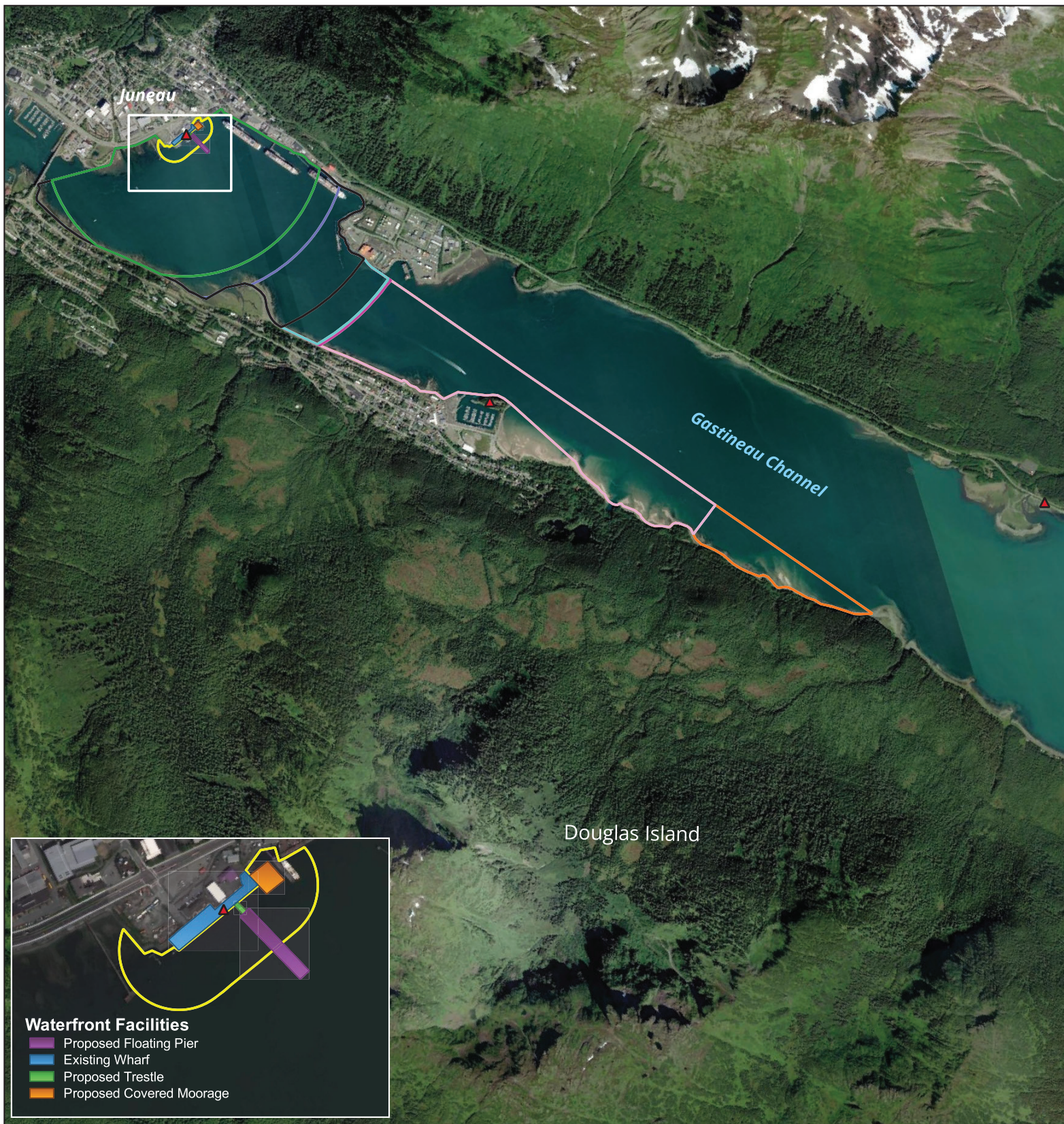
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FIGURE:
A-1

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Continuous/Vibratory Level B Zones

- Hydraulic chainsaw: 1,166m
- Pile clipper: 1,792m
- 24-in sheet pile: 4,642m
- 16-in timber pile and diamond wire saw: 6,310m*
- 24-in concrete and pipe pile: 7,356m*
- 30 & 36-in pipe pile: 11,659m*
- 42-in pipe pile: 21,544m*
- 48-in pipe pile: 25,119m*

DTH Level B Zones

- 24-in pipe pile: 13,594m*
- >=30-in pipe pile: 39,811*

Impact Level B Zones

- 24-in concrete pile: 117m
- 24 & 30-in pipe pile: 1,000m
- 24-in sheet pile: 1,000m
- 42 & 48-in pipe pile: 1,359m
- 36-in pipe pile: 1,585m

▲ Potential PSO Locations

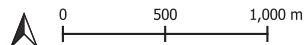
Note:
*Zones hit land at approximately 6000m

BIOLOGICAL ASSESSMENT FOR MAJOR CUTTERS HOMEPORTING

STATION JUNEAU, ALASKA

LEVEL B HARASSMENT ZONES

Floating Pier, Eastern Side of Wharf, Trestle and Covered Moorage



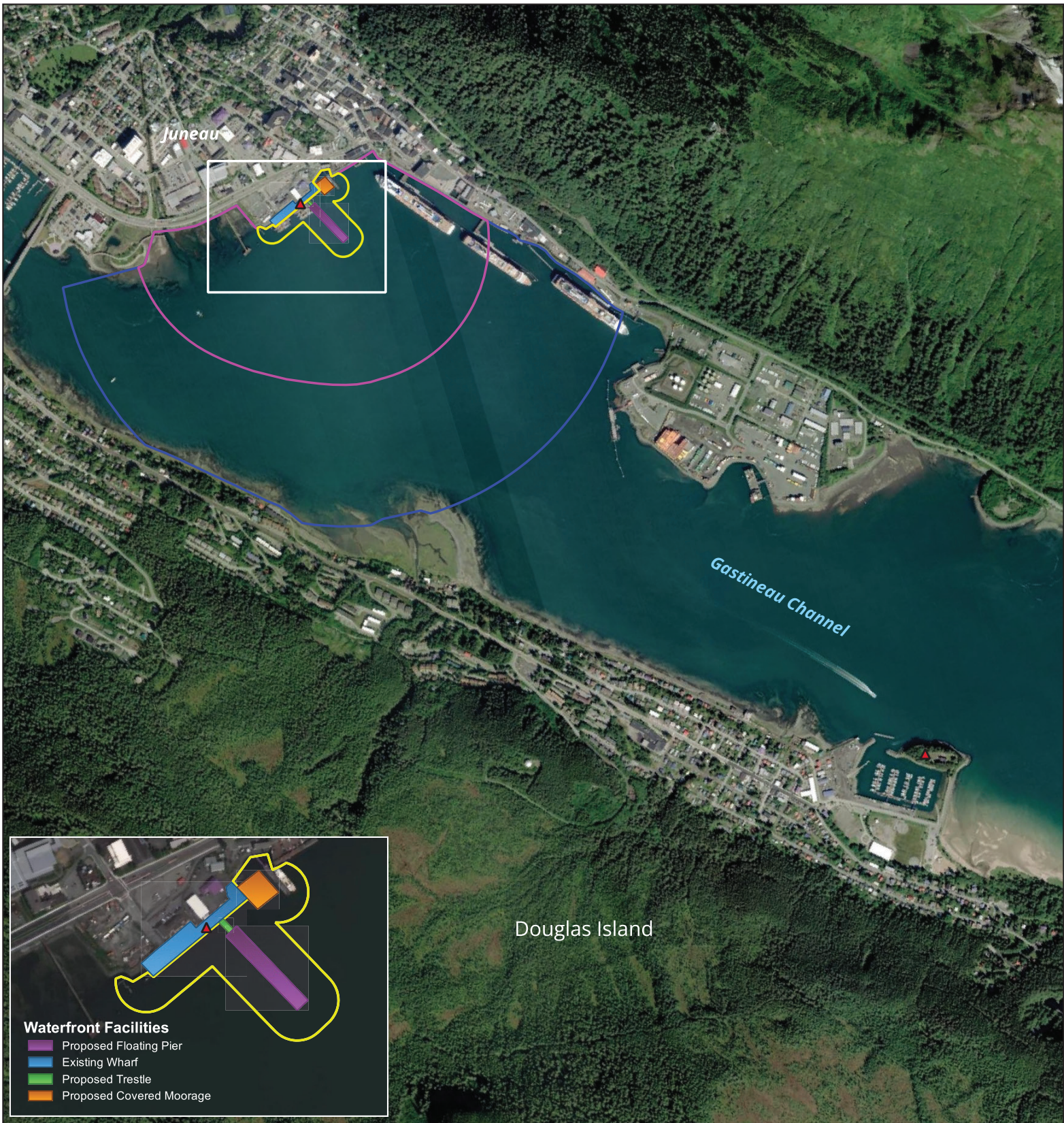
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FIGURE:
A-2

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Shutdown Zones

- 50m zone
- 500m zone
- 1000m zone

▲ Potential PSO Locations

BIOLOGICAL ASSESSMENT FOR MAJOR CUTTERS HOMEPORTING

STATION JUNEAU, ALASKA

SHUTDOWN ZONES



0 250 500 m

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FIGURE:
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APPENDIX B

ESSENTIAL FISH HABITAT ASSESSMENT

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Appendix B

Essential Fish Habitat Assessment

**USCG Major Cutters Homeporting: Facility
Replacement and Pier Construction**

Juneau, Alaska

Final Report

May 2026

Prepared for

Brice Solutions
Anchorage, Alaska

and

U.S. Coast Guard
Civil Engineering Unit Juneau
Contract: 70Z08723DJUNE0001

Prepared by

61 North Environmental
Anchorage, Alaska



U.S. Coast Guard
Arctic District
Civil Engineering Unit Juneau
Juneau, Alaska

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ATTACHMENTS

Attachment 1 – Essential Fish Habitat Mapper Reports

Acronyms and Abbreviations

°	degrees
AWC	Anadromous Waters Catalog
BA	Biological Assessment
DIPAC	Douglas Island Pink & Chum, Inc.
DTH	down-the-hole (drilling)
dB	decibels
dB peak	instantaneous peak dB level
EFH	Essential Fish Habitat
FMP	Fishery Management Plan
GOA Groundfish FMP	Fishery Management Plan for Groundfish Fisheries of the Gulf of Alaska
HAPCs	Habitat Areas of Particular Concern
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NPFMC	North Pacific Fishery Management Council
ROI	region of influence
rms	root-mean-square
Salmon FMP	Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska
SEL _{cum}	cumulative sound exposure level
SEL _{ss}	single-strike sound exposure level
SPL	sound pressure level
USCG	U.S. Coast Guard

1 Introduction

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires Federal agencies to consult with the National Marine Fisheries Service (NMFS) regarding any action authorized, funded, or undertaken by such agency that may adversely affect Essential Fish Habitat (EFH). EFH is defined in the MSA as the waters and substrate necessary for fish to spawn, breed, feed, or grow to maturity. The *Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska* (Salmon Fishery Management Plan [FMP]; NPFMC North Pacific Fishery Management Council [NPFMC] 2024a) and the *Fishery Management Plan for Groundfish Fisheries of the Gulf of Alaska* (GOA Groundfish FMP; NPFMC 2024b) describe EFH for managed species by life stage using the best available scientific information.

This EFH Assessment was prepared in support of the U.S. Coast Guard (USCG) proposal to demolish and replace existing waterfront infrastructure at USCG Station Juneau in the Gastineau Channel. The channel is designated by the NPFMC as Essential Fish Habitat for 16 fish species (5 salmon and 11 groundfish). The purpose of this assessment is to identify EFH in the project area, evaluate the potential adverse effects of the proposed action on EFH, and describe measures to avoid, minimize, or otherwise offset those effects. The proposed action and construction details summarized herein are based on the Biological Assessment (BA) prepared for the project.

2 Proposed Action

2.1 PROJECT LOCATION AND SETTING

The USCG is proposing to homeport major cutters at USCG Station Juneau, Alaska (Figure 1). The current upland facilities and aging timber wharf at USCG Station Juneau are insufficient for berthing major cutters for extended durations. To support the homeporting action, the USCG proposes to decommission the existing wharf, construct a new wharf, trestle, floating pier, and covered mooring for smaller vessels, and upgrade existing facilities both in-water and onshore (Figure 2). The purpose of this project is to provide the necessary waterfront infrastructure to homeport two major cutters simultaneously. Recapitalizing the legacy timber wharf will also enable the USCG to host visiting ships, including seagoing and coastal buoy tenders, as well as National Oceanic and Atmospheric Administration (NOAA) research ships.

USCG Station Juneau is located at the northwest end of Gastineau Channel, in downtown Juneau, Alaska (at N 58.298191 degrees [°], W 134.412818°). Figure 1 displays the project location and vicinity. Figure 2 shows the project's area of impact on EFH, or the region of influence (ROI), which includes Juneau Harbor and a portion of Gastineau Channel. The proposed expansion to the existing facility is located in a developed area with adjacent industrial, commercial, recreational, and governmental maritime operations.

Gastineau Channel is a glacially carved valley approximately 15 miles (24 kilometers) long and 0.4–1 miles (0.6–1.6 kilometers) wide that separates the mainland from Douglas Island, with Juneau located near its midpoint. North of downtown, the channel transitions to extensive intertidal wetlands. To the south, it deepens to an average of approximately 100 feet (30 meters) and extends to the confluence with Stephens Passage and Taku Inlet. At the opening, the water depth increases to approximately 300 feet (91 meters). The tides are semidiurnal, with a mean tidal range of 16.3 feet (5 meters).

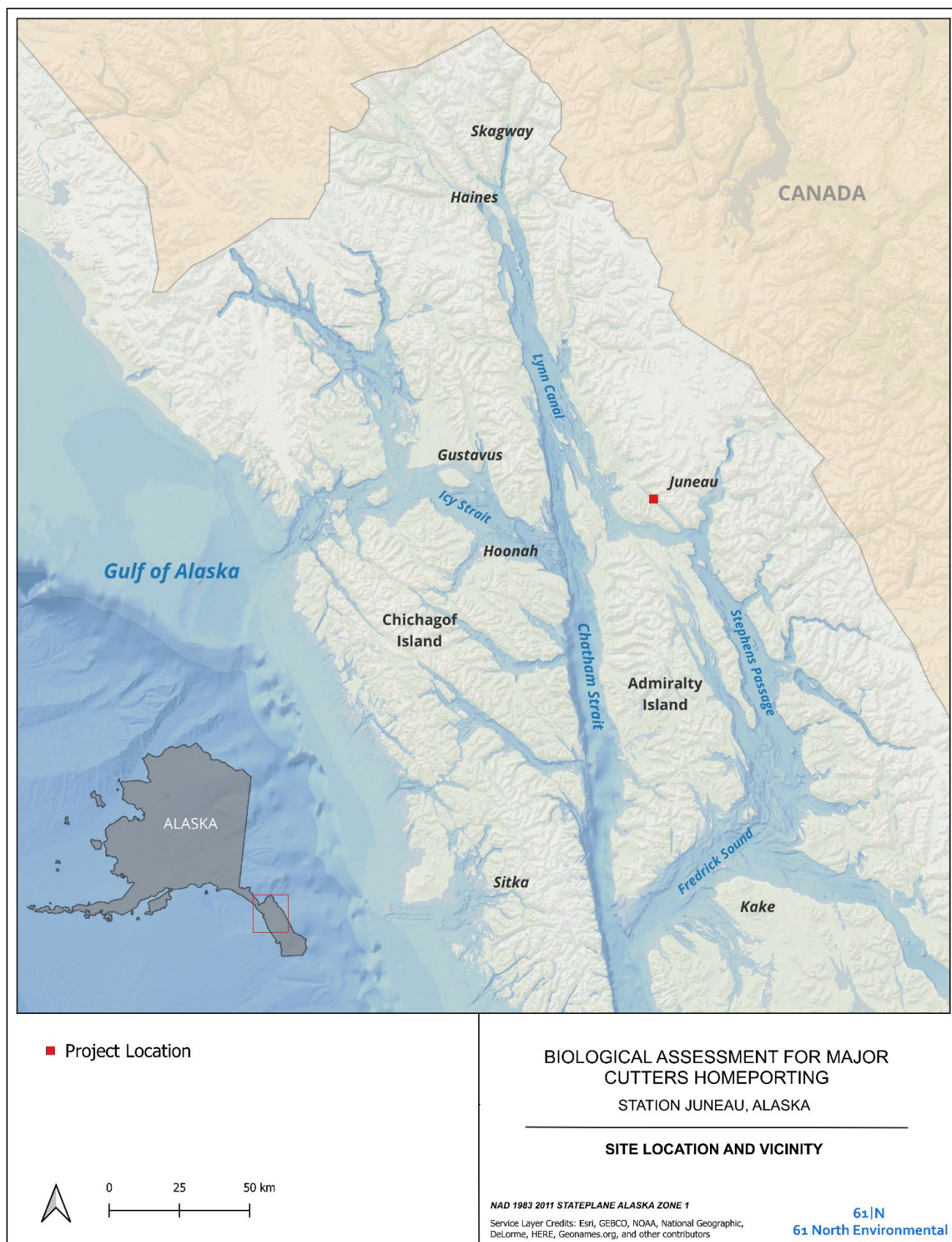


Figure 1. Proposed USCG Homeporting of Major Cutters Project Location and Vicinity

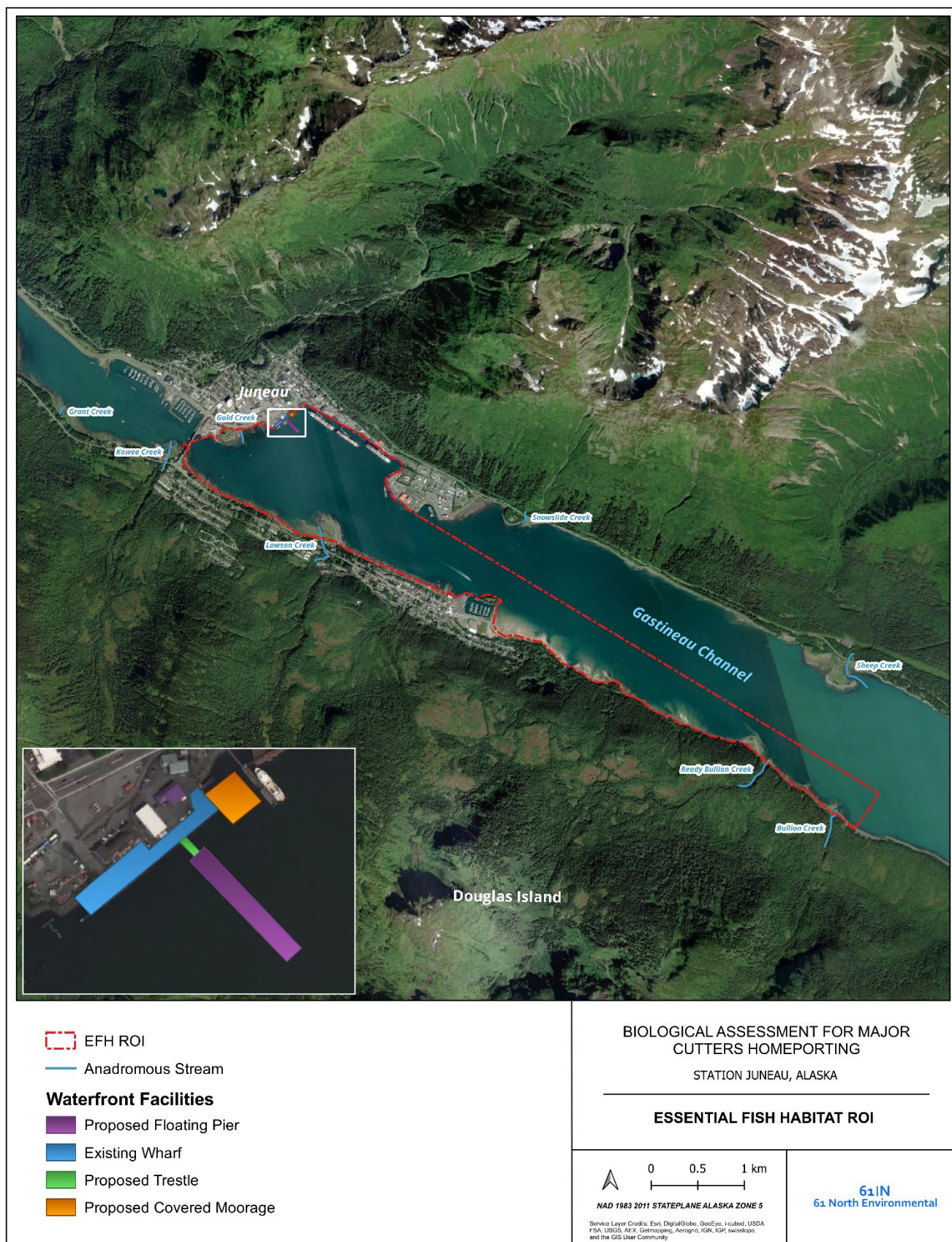


Figure 2. Project Components and Region of Influence/Action Area for Essential Fish Habitat

2.2 PROJECT REGION OF INFLUENCE

For the purposes of this assessment, the EFH ROI is the area directly and indirectly affected by the proposed action, including areas where project-related stressors may reduce the quality and/or quantity of EFH. Direct effects of the proposed in-water demolition and construction activities on EFH may include removal of substrate through dredging or excavation, disposal of dredging spoils in an offshore area, placement of fill or rock along the shoreline, and the footprints of temporary and permanent piles. Indirect effects may include increased turbidity and siltation, light attenuation from turbidity and overshadowing, contaminant release and absorption, noise disturbance, and loss or transformation of existing habitat. Of the potential effects, this assessment determined that noise disturbance from impact pile driving will have the greatest geographic extent of impact on EFH and federally managed species and is what the extent and shape of the ROI are based upon.

For fish behavioral disturbance, NMFS designates a threshold of 150 decibels (dB) determined by the root-mean-square (rms) received level metric (NOAA Fisheries 2023). The activity with the highest expected sound pressure level (SPL) from the project is impact pile driving of 36-inch piles, with SPLs up to 193 dB rms, which will attenuate to approximately 150 dB rms at a distance of 7,356 meters in open water. However, the access trestle and floating pier will be located on the eastern side of the project, where landforms along Gastineau Channel and Douglas Island will limit sound transmission to approximately 6,000 meters. The western half of the wharf is more exposed to Gastineau Channel, and the sound is less restricted in this location. However, the preliminary engineering estimate does not anticipate wharf piles exceeding 24 inches in diameter. An A SPL of 190 dB rms will result from impact pile driving of 24-inch piles or 24-inch sheet piles and will attenuate to approximately 150 dB rms at a distance of 4,642 meters from the source, which is less than the 6,000-meter distance expected from the larger piles on the eastern side of the project. Therefore, the maximum distance to the EFH ROI boundary is approximately 6,000 meters as seen in the extent of the ROI boundary in Figure 2.

2.3 PROJECT COMPONENTS

The proposed action will upgrade the waterfront infrastructure needed to homeport major cutters at USCG Station Juneau. As described in the BA, the project includes demolition of the existing timber wharf and mooring dolphin; repair and rehabilitation of the existing concrete retaining wall; construction of a replacement wharf, access trestle/gangway, floating pier, and covered mooring; and dredging to deepen the berth along the wharf face.

The existing timber wharf at USCG Station Juneau traverses the intertidal zone to a water depth of approximately 30 feet (9 meters) at the face. The USCG will construct the new wharf on approximately the same footprint and in the same location, but will modernize the new wharf to include full shore-tie utilities, fendering, and mooring hardware to support a vessel up to 225 feet (69 meters) in length. The new floating pier will be 560 feet (170 meters) long and 80 feet (24 meters) wide. The floating pier, trestle, and gangway will extend approximately 700 feet (215 meters) offshore from the high-water mark and 640 feet (195 meters) from the face of the new wharf. The USCG design specifications require the floating pier to accommodate major cutters up to 460 feet (140 meters) in length. The existing water depth along the proposed floating pier ranges from 50 to 100 feet (15 to 30 meters). The project also includes the removal and replacement of the small vessel floating pier, currently on the northeast end of the wharf, with a covered mooring to support the USCG's smaller vessels.

As described in the BA, one potential design option is a sheet-pile bulkhead wharf. If that design is confirmed, the action will include permanent discharge of fill in the intertidal zone associated with the construction of the bulkhead-supported structure. Based on current project information, approximately 1 acre (4,000 square meters) of intertidal habitat will be permanently filled and converted. This effect will be distinct from the temporary effects of pile installation, pile removal, dredging, and demolition because it will permanently eliminate existing intertidal waters and substrate within the fill footprint.

2.4 CONSTRUCTION ACTIVITIES

The design-build contractor has not yet been selected, and the final means and methods may vary; however, the BA assumes a reasonable upper range of pile numbers, sizes, durations, and installation methods. The existing timber wharf consists of approximately 500 timber piles. Depending on the final design, the replacement facility may include interlocking sheet piles, steel pipe piles, concrete piles, temporary template piles, and guide piles for the floating pier and associated structures. Construction may involve vibratory extraction, vibratory driving, impact driving, and down-the-hole (DTH) drilling. Dredging, barge use, tug support, and possible placement of rock or fill in water may also occur.

3 Essential Fish Habitat in the Project Area

3.1 PACIFIC SALMON ESSENTIAL FISH HABITAT

The Salmon FMP defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity,” and states that EFH is determined as the general distribution of a species described by life stage. The Salmon FMP includes all five species of Pacific salmon: Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), pink (*Oncorhynchus gorbuscha*), sockeye (*Oncorhynchus nerka*), and chum (*Oncorhynchus keta*). The FMP identifies EFH for these species across freshwater, estuarine, and marine life stages (NPFMC 2024a).

The Alaska Department of Fish and Game’s (ADF&G) Anadromous Waters Catalog (AWC) identifies eight anadromous fish-bearing streams within or near the project EFH ROI, which support runs of coho, pink, and chum salmon (Table 1; Giefer and Evers 2025; ADF&G n.d.). Additionally, the Macaulay Salmon Hatchery, operated by Douglas Island Pink and Chum, Inc. (DIPAC), is located approximately 4.2 kilometers (2.7 miles) northwest of the project area and rears chum, coho, and Chinook salmon for release in Gastineau Channel and area streams. The hatchery supports commercial and sport fishing for salmon in the Juneau area (DIPAC 2025).

Table 1. Anadromous Waters Supporting Pacific Salmon Species Within or Near the Project EFH ROI

STREAM NAME	AWC NUMBER	SALMON SPECIES PRESENT
Gold Creek	111-40-10200	Chum, Pink
Kowee Creek	111-40-10900	Chum, Pink
Grant Creek	111-40-10910	Coho, Chum
Lawson Creek	111-40-10890	Chum, Pink
Snowslide Creek	111-40-10240	Coho
Sheep creek	111-40-10280	Chum, Pink
Ready Bullion Creek	111-40-10860	Pink
Bullion Creek	111-40-10850	Pink

Notes:

For definitions, refer to the Acronyms and Abbreviations section.

Source: Giefer and Evers 2025; ADF&G n.d.

The habitat features in the project area, including water depth and estuarine qualities, meet the narrative descriptors of EFH in the Salmon FMP for estuarine juveniles, marine juveniles, and marine immature and maturing adults for all five species of Pacific salmon. A recent EFH comment letter issued by NMFS for the Áak’w Landing Development Project (NOAA Fisheries 2025), which is located adjacent to USCG Station Juneau, states that the nearshore marine waters surrounding that project area contain EFH for chum, pink, and coho salmon. These species are seasonally present in the streams identified in Table 1.

None of the eight anadromous fish-bearing streams near or bordering the project EFH ROI have a documented sockeye salmon presence. Therefore, estuarine juveniles of this species are unlikely to occur within the ROI. However, the project site meets the EFH descriptions required for sockeye marine juveniles and marine immature and maturing adults. Therefore, this assessment includes sockeye salmon and these life stages. Similarly, because the Macaulay Salmon Hatchery releases juvenile Chinook salmon in Gastineau Channel and nearby streams, and the EFH descriptions are met at the project site, this assessment includes Chinook salmon and their relevant life stages. In addition, correspondence with a Fisheries Habitat Biologist at the NMFS Alaska Region Habitat Conservation Division confirmed that the project’s marine areas are designated EFH for all Pacific salmon species (Kelly, S., personal communication). Table 2 lists the species and life stages that may occur in the project area.

Table 2. Pacific Salmon Species and Life Stages Anticipated Within the Project Essential Fish Habitat ROI

COMMON NAME	SCIENTIFIC NAME	LIFE STAGES
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature & Maturing Adults
Pink salmon	<i>Oncorhynchus gorbuscha</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature & Maturing Adults
Sockeye salmon	<i>Oncorhynchus nerka</i>	Marine Juveniles; Marine Immature & Maturing Adults
Chum salmon	<i>Oncorhynchus keta</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature & Maturing Adults
Coho salmon	<i>Oncorhynchus kisutch</i>	Estuarine Juveniles; Marine Juveniles; Marine Immature & Maturing Adults

Notes:

Source: NPFMC 2024a; NOAA Fisheries 2025; Kelly, S., personal communication

3.2 GROUNDFISH ESSENTIAL FISH HABITAT

The GOA Groundfish FMP describes EFH for groundfish species in the Gulf of Alaska by species and life stage as general distribution (NPFMC 2024b). The NMFS Alaska Regional Office publishes the Alaska Essential Fish Habitat Mapper, an interactive web mapping tool to aid in identifying EFH for fish species and life stages that may occur at user-selected points (NOAA Fisheries n.d.). Selected points within the project EFH ROI were entered into the EFH mapper, which produced a list of EFH for groundfish species and expected life stages (Table 3; Attachment 1). Correspondence with a Fisheries Habitat Biologist at the NMFS Alaska Region Habitat Conservation Division confirmed that the list of groundfish species produced by the EFH mapper was accurate for the project location (Kelly, S., personal communication). Analysis of the EFH text descriptions in the GOA Groundfish FMP further refined and confirmed the EFH for the species’ life stages supported by the habitat features in the EFH ROI.

Table 3. Groundfish Species and Life Stages Anticipated Within the Project EFH ROI

COMMON NAME	SCIENTIFIC NAME	LIFE STAGES
Arrowtooth flounder	<i>Atheresthes stomias</i>	Larvae; Settled Early Juvenile; Subadult; Adult
English sole	<i>Parophrys vetulus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Flathead sole	<i>Hippoglossoides elassodon</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Northern rock sole	<i>Lepidopsetta polyxystra</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Pacific cod	<i>Gadus macrocephalus</i>	Egg; Larvae; Pelagic Early Juvenile; Settled Early Juvenile; Subadult; Adult
Rex sole	<i>Glyptocephalus zachirus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Sablefish	<i>Anoplopoma fimbria</i>	Settled Early Juvenile
Southern rock sole	<i>Lepidopsetta bilineata</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Starry flounder	<i>Platichthys stellatus</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Walleye pollock	<i>Theragra calcogramma</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult
Yellowfin sole	<i>Limanda aspera</i>	Egg; Larvae; Settled Early Juvenile; Subadult; Adult

Notes:

Source: NPFMC 2024; NOAA Fisheries n.d.; Kelly, S., personal communication

In addition to designating EFH, the NPFMC is responsible for identifying Habitat Areas of Particular Concern (HAPCs) for federally managed species. HAPCs are designated to provide enhanced focus for conservation and management by identifying EFH that is of high ecological importance to the long-term sustainability of managed species, is rare or unique, or is particularly susceptible to degradation or development. No HAPCs are within or near the project EFH ROI.

3.3 EXISTING HABITAT CONDITIONS

The project area is within Alaska’s estuarine and nearshore marine environment, where physical, chemical, and biological processes support EFH and shallow nearshore habitats function as important fish nurseries. Nearshore and intertidal habitats provide migration, rearing, refuge, and foraging functions for managed salmon and groundfish species and support EFH attributes such as water quality, water clarity, dissolved oxygen, substrate complexity, and prey availability (Limpinsel et al. 2023). The 322-meter (1,056-foot) ShoreZone Habitat Class along the wharf is classified as Protected/Anthropogenic Permeable. The associated Coastal Class and Shore Type are both Man-Made Permeable, and the Environmental Sensitivity Index is Sheltered Rip-Rap with No Aquatic Vegetation Listed (NOAA Fisheries 2022). Limpinsel et al. (2023) describe that shaded under-dock environments provide lower-quality habitat for fish, plants, and invertebrates than unshaded, vegetated habitats.

The intertidal and shallow nearshore zone under the wharf provides some habitat functions for aquatic organisms. If a pile-supported wharf is constructed, the resulting habitat quality will be expected to be similar to the current condition. However, any permanent fill placed below the high tide line will not merely modify an already developed site, but will permanently convert existing intertidal and subtidal waters and substrate that currently contribute to EFH function.

4 Analysis of Effects on Essential Fish Habitat

4.1 OVERVIEW

The proposed action has the potential to adversely affect EFH through both direct and indirect mechanisms. The MSA defines an adverse effect as any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate, including loss of, or injury to, benthic organisms, prey species, and their habitat, as well as other ecosystem components. For the proposed action, the principal pathways of effect include direct disturbance and conversion of substrate from dredging, pile installation and removal, demolition, anchoring, and fill placement; increased turbidity and siltation with corresponding reductions in water clarity and potential effects on dissolved oxygen and prey resources; contaminant release or exposure; underwater sound and pressure from pile driving; and the introduction or spread of invasive species associated with overwater structures and vessel activity.

Most effects of the proposed action will be short-term. However, if the sheet pile bulkhead design is selected, the project will also result in permanent loss and conversion of approximately 1 acre (4,000 square meters) of intertidal and subtidal habitat through fill placement. That permanent habitat loss will be a consequential EFH effect of the action, as it will reduce both the quantity of EFH and the ecological functions of the intertidal zone.

4.2 DREDGING, DEMOLITION, FILL, AND DIRECT EFFECTS ON WATERS AND SUBSTRATE

Dredging, in-water demolition, pile installation and removal, and fill placement can adversely affect both benthic and water column EFH. Limpinsel et al. (2023) identify the principal effects of these activities as direct removal, burial, or conversion of habitat; increased turbidity and siltation; contaminant release and uptake; release of oxygen-consuming substances; entrainment and disturbance of aquatic organisms; and alteration of physical habitat and hydrodynamic conditions.

Direct effects under the proposed action will occur where existing piles are removed, new piles are installed, dredging is conducted, and temporary construction support features contact the marine bottom. If a pile-supported wharf is designed, those direct effects will be primarily localized to the pile footprint, dredged area, and temporary work areas.

If the bulkhead design is selected, direct effects will also include the permanent discharge of fill, resulting in the permanent burial and conversion of approximately 1 acre (4,000 square meters) of intertidal and subtidal waters and substrate. The fill footprint will permanently eliminate existing intertidal habitat functions within the affected area and will reduce the quantity of available EFH in Gastineau Channel. Sheet pile bulkhead structures replace intertidal and shallow habitats with deeper water, altering water dynamics—from slower currents at the shallow interface to faster flows across the sheer sheet pile wall. The sheltered zones of slower water, which typically host more juvenile fish, are lost, along with the clearer water microhabitats in the intertidal zone that support visual feeding (Limpinsel et al. 2023).

4.3 TURBIDITY, SEDIMENTATION, WATER QUALITY, AND INDIRECT EFFECTS ON PREY RESOURCES

Temporary increases in suspended sediments are expected from pile installation and removal, dredging, demolition, DTH-associated discharges, and other in-water construction activities. Elevated turbidity and sedimentation can degrade EFH by reducing water clarity, limiting light penetration, smothering benthic habitat, and impairing prey production and availability (Limpinsel et al. 2023). Fine sediments may cover respiratory surfaces, eggs, and benthic habitats, while suspended and deposited materials can adversely affect macroinvertebrates and other forage

organisms. Limpinsel et al. (2023) further describe that contaminant release associated with sediment disturbance can introduce nutrients, metals, organics, and other oxygen-demanding substances into the water column and substrate. These effects are particularly relevant in nearshore and estuarine environments, where relatively high biomass and lower water volumes can reduce the dilution and dispersion of suspended materials.

Removal of the timber wharf piles may cause sediment suspension and pollutant reintegration into the water column. The degree of effect depends in part on the removal method: vibratory removal generally allows sediments to slough off at or near the mudline and produces relatively lower turbidity, whereas direct-pull and clamshell methods can suspend larger quantities of sediment and contaminants as material sloughs from the pile through the water column. Removal of the existing creosote-treated timber piles a toxic marine pollutant, may temporarily increase exposure to suspended contaminants; however, it may also provide long-term habitat benefits by eliminating a chronic source of polycyclic aromatic hydrocarbons and other toxic compounds (Limpinsel et al. 2023).

Under the bulkhead wharf design option, these temporary water-quality effects will occur in addition to permanent loss of intertidal habitat area, thereby combining short-term degradation of EFH quality during construction with long-term reduction in EFH quantity after construction.

4.4 UNDERWATER SOUND FROM PILE DRIVING

Noise from pile driving can cause behavioral disturbance, injury, and mortality to fish. Fish responses differ markedly between impact and vibratory pile driving hammers. Vibratory hammers generate relatively lower-intensity, low-frequency, rapidly repeating, and long-duration sound. Fish consistently avoid these sounds without habituating, which can displace them from spawning or migration areas. In contrast, impact hammers produce brief, intense sound spikes that may initially elicit a startle response; however, habituation often occurs quickly. Because avoidance is limited during impact hammering, fish may remain in areas where pressure waves reach potentially harmful levels (Limpinsel et al. 2023).

Acousticians use various metrics to measure underwater sound. Hydroacoustic studies typically report SPL as the instantaneous peak dB level (dB peak), the dB rms level, and the single-strike sound exposure level (SEL_{ss}). To assess impacts on fish, NMFS specifies behavioral response thresholds (i.e., the received level) in dB rms, physical injury thresholds in dB peak, and cumulative sound exposure level (SEL_{cum}), which, for fish, is a measure of total energy received during pile driving activity over 12 hours.

Fish may be injured by impulsive sounds if they exceed 206 dB peak. Cumulative exposure thresholds are 187 dB SEL_{cum} for fish greater than 2 grams and 183 dB SEL_{cum} for fish less than 2 grams. Noise from impact pile driving may exceed the NMFS-designated behavioral disturbance threshold (150 dB rms; NOAA Fisheries 2023). Impact pile driving may produce sound up to 193 dB rms, attenuating to 150 dB rms up to 7,356 meters from the source, if piles 36 inches in diameter or larger are installed in this manner. However, underwater sound from piles installed for the access trestle, floating pier, covered small vessel float, and on the east side of the wharf will be limited to 6,000 meters or less due to the landforms present in Gastineau Channel. Sound levels from impact pile driving may reach 213 dB peak, and 185 dB SEL_{ss}. Each of these exceeds the physical injury thresholds for fish.

Physical injury may occur to any fish species, but it is less likely in those that lack a swim bladder. Of the species with designated EFH within the ROI for fish, sablefish and flatfish species in the *Pleuronectidae* family (right-eyed flounders) do not have a swim bladder. The *Pleuronectidae* family includes arrowtooth flounder, English sole, flathead sole, northern rock sole, southern rock sole, rex sole, starry flounder, and yellowfin sole (FishBase.org 2026). Species such as walleye pollock, Pacific cod, and salmonids have swim bladders and are more susceptible to injury from impact pile driving. Out-migrating salmonid fry and smolt from nearby anadromous fish-bearing streams and the Macaulay Salmon Hatchery are particularly susceptible to injury from impact pile driving due to their small size. Pile driving noise may also disrupt schooling behavior and movement coordination. The likelihood and severity of effects vary with environmental conditions, pile type, installation method, and substrate (Limpinsel et al. 2023). To mitigate potential harm from pile driving, the USCG will implement avoidance, minimization, and best management practices (Section 5).

4.5 OVERWATER STRUCTURES, VESSEL OPERATIONS, AND INVASIVE SPECIES

Harbor infrastructure, overwater structures, and vessel operations may also adversely affect EFH through shading, localized changes in fish behavior, contamination, wake and prop-wash effects, and the introduction or spread of invasive species. Limpinsel et al. (2023) note that juvenile fish may congregate around breakwaters and bulkheads in protected marinas and ports, and that shoreline development can generate secondary effects, including suspended sediment loading, shading from piers and wharves, and contamination from runoff and spills. Marine vessel infrastructure in Southeast Alaska harbors is susceptible to invasive fouling organisms, including tunicates and related species (Limpinsel et al 2023). Furthermore, the relocation of older dock materials can transport those organisms to new areas. The USCG will not reuse any existing in-water piles or structures and will dispose of them in accordance with applicable regulations.

If the bulkhead design is selected, the project will also replace a portion of existing intertidal and subtidal habitat with hardened shoreline and fill, further reducing the complexity of intertidal habitat and lowering its overall value for species and life stages that use shallow intertidal and nearshore areas.

4.6 EFFECT DETERMINATION

Based on the proposed action, available project information, and habitat conditions in Gastineau Channel, the proposed action may adversely affect EFH. Adverse effects will result from temporary and localized disturbance associated with pile extraction, pile installation, dredging, demolition, underwater sound, turbidity, sedimentation, contaminant pathways, and invasive species risks. In addition, if the bulkhead alternative is selected, the project will permanently reduce the quantity of EFH by placing approximately 1 acre (4,000 square meters) of fill in the intertidal area, causing permanent habitat loss and conversion. However, those adverse effects will be mitigated by implementing the proposed avoidance and minimization measures and best management practices (Section 5), the conditions of the U.S. Army Corps of Engineers permit, and the conservation recommendations provided by NMFS.

5 Avoidance, Minimization, and Best Management Practices

USCG would implement project-specific Best Management Practices and follow NMFS-recommended in-water work windows, when practicable, to avoid or minimize effects on federally managed fish species and EFH. If in-water work between 15 April and 1 June (during salmon smolt outmigration periods) were necessary to meet the construction schedule and support mission readiness, USCG would implement additional mitigation measures as practicable during impact pile driving and following best practices for pile removal and dredging to minimize sediment plumes during wharf demolition and dredging activities. The following Best Management Practices, avoidance measures, and minimization measures will be implemented for the proposed action:

5.1 SEASONAL AND TIMING MEASURES

1. The USCG contractor will minimize the number of piles installed from 15 April to 1 June of any year, to the extent practicable.
2. When practicable, the USCG contractor will avoid the use of an impact hammer from 15 April to 1 June of any year.
3. When practicable, the USCG contractor will avoid demolition of the existing timber wharf from 15 April to 1 June of any year.
4. To the extent feasible and practicable, piles will be installed and removed during lower tidal cycles when piles are in the dry.

5. The concrete retaining wall is within the upper intertidal zone; to the extent feasible, demolition or repairs will be carried out at low tide when the area is dewatered and accessible.

5.2 PILE INSTALLATION AND REMOVAL MEASURES

1. Vibratory hammer methods will be used to the maximum extent practicable until refusal; impact driving will be used only to the minimum extent necessary to meet load and substrate penetration specifications.
2. Soft-start procedures will be applied prior to impact pile driving at the start of each day and after hammer idle periods exceeding 30 minutes.
3. Impact hammer use will be concentrated into as few days as practicable.
4. If in-water work is required from 15 April to 1 June, the USCG contractor would, as practicable, employ the use of noise attenuation devices (e.g., bubble curtains, pile caps) during impact pile driving.
5. Temporary piles and equipment will be inspected for invasive invertebrates prior to use, and new piles will be used when practicable.

5.3 WATER QUALITY AND MATERIALS MANAGEMENT MEASURES

1. Uncured concrete will be poured into watertight forms, and overtopping will be prevented through monitoring and control measures.
2. Sediments will be tested for contaminants prior to dredging in accordance with Environmental Protection Agency and U.S. Army Corps of Engineers requirements.
3. Only clean construction materials suitable for marine use will be used.
4. Construction debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings, chemicals, oil, and petroleum products will not be allowed to enter marine waters or nearby streams.
5. If in-water work is required from 15 April to 1 June, the USCG contractor would, as practicable, employ turbidity/silt curtains to minimize sediment plumes during wharf demolition and dredging activities.
6. EFH will be considered during oil response planning.
7. Excess material and debris will be removed from the work area and disposed of at an appropriate upland site upon completion of each project component.
8. Any removed creosote-treated piles shall be disposed of at an upland location and shall not be re-used in the marine environment, in order to prevent the reintroduction of contaminants and invasive species.

5.4 SPILL PREVENTION AND RESPONSE MEASURES

The USCG will implement general project controls requiring routine inspection and maintenance of fuel hoses, drums, transfer valves, and fittings; suspension of work and implementation of corrective action if contaminated or hazardous materials are released; and maintenance of spill cleanup kits on site. Plans for avoiding, minimizing, and responding to releases of sediments, contaminants, fuels, oil, and other pollutants shall be provided to NMFS Alaska Region staff for review and comment prior to initiation of project construction activities.

5.5 FILL MINIMIZATION MEASURES

If the bulkhead design is selected, the USCG and contractor will minimize the area of permanent fill in waters of the U.S. to the maximum extent practicable through final design refinement. To the extent practicable, the design will avoid unnecessary encroachment into the intertidal zone, limit fill to the minimum footprint necessary to achieve structural and operational requirements, and confine permanent fill to areas essential for the selected wharf configuration.

6 Conclusion

The proposed action will occur within nearshore waters and substrate that support EFH for Pacific salmon and Gulf of Alaska groundfish species and life stages. The action may adversely affect EFH through direct disturbance of benthic habitat and prey resources; increased turbidity, siltation, and sedimentation; contaminant release or exposure; underwater sound and pressure from pile driving; and invasive species pathways associated with harbor infrastructure and vessel activity. Most of these construction-related effects will be localized and temporary. However, if the bulkhead design is selected, the project will also cause permanent loss and conversion of approximately 1 acre (4,000 square meters) of intertidal habitat through fill placement. That permanent loss will represent a direct reduction in EFH and will be among the most substantial habitat effects of the action. Accordingly, the proposed action may adversely affect EFH. However, those adverse effects will be minimized or avoided through the implementation of avoidance and minimization measures and best management practices, permit conditions, and conservation recommendations.

7 References

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ATTACHMENT 1

ESSENTIAL FISH HABITAT MAPPER REPORTS

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EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Alaska Regional Office](#)

Query Results

Degrees, Minutes, Seconds: Latitude = 58° 17' 34" N, Longitude = 135° 35' 32" W

Decimal Degrees: Latitude = 58.293, Longitude = -134.408

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Arrowtooth flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		English sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Flathead sole (Gulf of Alaska)	Early Juvenile (Summer), Egg (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Northern rock sole (Gulf of Alaska)	Early Juvenile (Summer), Larvae (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Pacific cod (Gulf of Alaska)	Larvae (Summer), Settled Early Juvenile (Summer)	North Pacific	Amendment 105 to GOA Groundfish FMP
		Rex sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Sablefish (Gulf of Alaska)	Settled Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Southern rock sole (Gulf of Alaska)	Early Juvenile (Summer), Larvae (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Starry flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Walleye pollock (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Yellowfin sole (Gulf of Alaska)	Early Juvenile (Summer), Egg (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

Gulf of Alaska Groundfish EFH,

Big Skate,
Longnose Skate,
Sharks,

Bering Sea / Aleutian Islands Groundfish EFH,

Forage Fish Complex,
Sharks (Bering Sea),
Squid Complex

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Alaska Regional Office](#)

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Arrowtooth flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Flathead sole (Gulf of Alaska)	Early Juvenile (Summer), Egg (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Northern rock sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Pacific cod (Gulf of Alaska)	Larvae (Summer), Settled Early Juvenile (Summer)	North Pacific	Amendment 105 to GOA Groundfish FMP
		Rex sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Sablefish (Gulf of Alaska)	Settled Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Southern rock sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Starry flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Walleye pollock (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Yellowfin sole (Gulf of Alaska)	Early Juvenile (Summer), Egg (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

Gulf of Alaska Groundfish EFH,

Big Skate,

Longnose Skate,

Sharks,

Bering Sea / Aleutian Islands Groundfish EFH,

Forage Fish Complex,

Sharks (Bering Sea),

Squid Complex

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Alaska Regional Office](#)

Query Results

Degrees, Minutes, Seconds: Latitude = 58° 15' 20" N, Longitude = 135° 40' 3" W

Decimal Degrees: Latitude = 58.256, Longitude = -134.332

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Arrowtooth flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Flathead sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Northern rock sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Pacific cod (Gulf of Alaska)	Settled Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Rex sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Sablefish (Gulf of Alaska)	Settled Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Southern rock sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Starry flounder (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA
		Walleye pollock (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Yellowfin sole (Gulf of Alaska)	Early Juvenile (Summer)	North Pacific	Amendment 115 to FMP for Groundfish GOA

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

Gulf of Alaska Groundfish EFH,

Big Skate,

Longnose Skate,

Sharks,

Bering Sea / Aleutian Islands Groundfish EFH,

Forage Fish Complex,

Sharks (Bering Sea),

Squid Complex

APPENDIX C
ACRONYMS AND ABBREVIATIONS

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ACRONYMS AND ABBREVIATIONS

~	approximately
°	degrees
µg/m ³	micrograms per cubic meter
µPa	micropascal
AAAQS	Alaska Ambient Air Quality Standards
AAC	Alaska Administrative Code
ACM	asbestos-containing material
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation and Public Facilities
AEL&P	Alaska Electric Light and Power
AHRS	Alaska Heritage Resource Survey
AN/AI	Alaska Native/American Indian
APDES	Alaska Pollutant Discharge Elimination System
APE	area of potential effect
AQ	air quality
A.S.	Associate of Science
AS	Alaska Statute
ASC	Arctic Security Cutter
AST	aboveground storage tank
AWC	Anadromous Waters Catalog
B.A.	Bachelor of Arts
BA	Biological Assessment
BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BGEPA	Bald and Golden Eagle Protection Act
bgs	below ground surface
BMP	best management practice
B.S.	Bachelor of Science
BTEX	benzene, toluene, ethylbenzene, xylenes
C&D	construction and demolition
CAA	Clean Air Act
CBJ	City and Borough of Juneau
Census	U.S. Census Bureau
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGC	U.S. Coast Guard Cutter
CGP	Construction General Permit

CO	carbon monoxide
COMDTINST	Commandant Instruction
CRS	Congressional Research Service
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dB peak	instantaneous peak decibel
dB re 1 μ Pa	decibel referenced to 1 micropascal
dB re 1 μ Pa ² s	decibel referenced to 1 micropascal squared per second
dB rms	root-mean-square decibel
dB SEL	sound energy exposure level (decibels) over 24 hours
DHS	Department of Homeland Security
DPS	Distinct Population Segment
DRO	diesel range organics
DTH	down-the-hole
eDPS	Steller sea lion Eastern Stock
EFH	Essential Fish Habitat
EO	executive order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
ESI	Environmental Sensitivity Index
FEMA	Federal Emergency Management Agency
FWHA	Federal Highway Administration
FMP	Fishery Management Plan
FWCA	Fish and Wildlife Coordination Act
GRO	gasoline range organics
HAPC	Habitat Area of Particular Concern
HTC	Huna Totem Corporation
IBA	Important Bird Area
IERPP	Integrated Emergency Response and Prevention Plan
IHA	Incidental Harassment Authorization
JEDC	Juneau Economic Development Council
JSD	Juneau School District
lb	pounds
LBP	lead-based paint
L _{eq}	Equivalent Continuous Sound Level
L _{max}	maximum sound level
LMP	Limited Maintenance Plan
LUST	leaking underground storage tank
M.A.	Master of Arts

MBTA	Migratory Bird Treaty Act
mg/kg	milligrams per kilogram
mg/m ³	milligrams per cubic meter
MMPA	Marine Mammal Protection Act
M.N.R.E.	Master of Natural Resources and Environment
M.P.A.	Masters of Policy Analysis
M.S.	Master of Science
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSGP	Multi-Sector General Permit
MW	megawatts
MWD	Maintenance and Weapons Detachment
MWh	megawatt-hours
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
National System	National Wild and Scenic Rivers System
n.d.	no date
NEPA	National Environmental Policy Act
NH ₃	anhydrous ammonia
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPFMC	North Pacific Fishery Management Council
NPS	National Park Service
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NWI	National Wetlands Inventory
NWRS	National Wildlife Refuge System
O ₃	ozone
OCSP	Open Cell Sheet Pile
OHA	[Alaska Department of Natural Resources] Office of History and Archaeology
OSHA	Occupational Safety and Health Administration
PAEL	Pre-Approved Emission Limit
PAH	polycyclic aromatic hydrocarbons
Pb	lead
PCB	polychlorinated biphenyl
PEA	Programmatic Environmental Assessment
PEIS	Programmatic Environmental Impact Statement

PM ₁₀	particulate matter less than 10 micrometers in aerodynamic diameter
PM _{2.5}	particulate matter less than 2.5 micrometers in aerodynamic diameter
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PSC	Polar Security Cutter
PTE	Potential to Emit
RCRA	Resource Conservation and Recovery Act
re	referenced to
RHA	Rivers and Harbors Act
rms	root mean square
ROI	region of influence
RRO	residual range organics
SAV	submerged aquatic vegetation
SDWA	Safe Drinking Water Act
SEA	Supplemental Environmental Assessment
SEARHC	Southeast Alaska Regional Health Consortium
SEL	sound energy exposure level
SEL	single-strike sound energy exposure level
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office/Officer
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SOA	State of Alaska
SPCC	Spill Prevention, Control, and Countermeasures
SPL	sound pressure level
SWAP	State Wildlife Action Plan
SWPPP	Stormwater Pollution Prevention Plan
T&E	threatened and endangered [species]
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Office/Officer
tpy	tons per year
UAS	University of Alaska Southeast
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VSQG	Very Small Quantity Generator

wDPS	Steller sea lion Western Stock
WELTS	State of Alaska Well Log Tracking System
WSA	Wild and Scenic Rivers Act
WSR	Wild and Scenic River
WWTP	Wastewater Treatment Plant

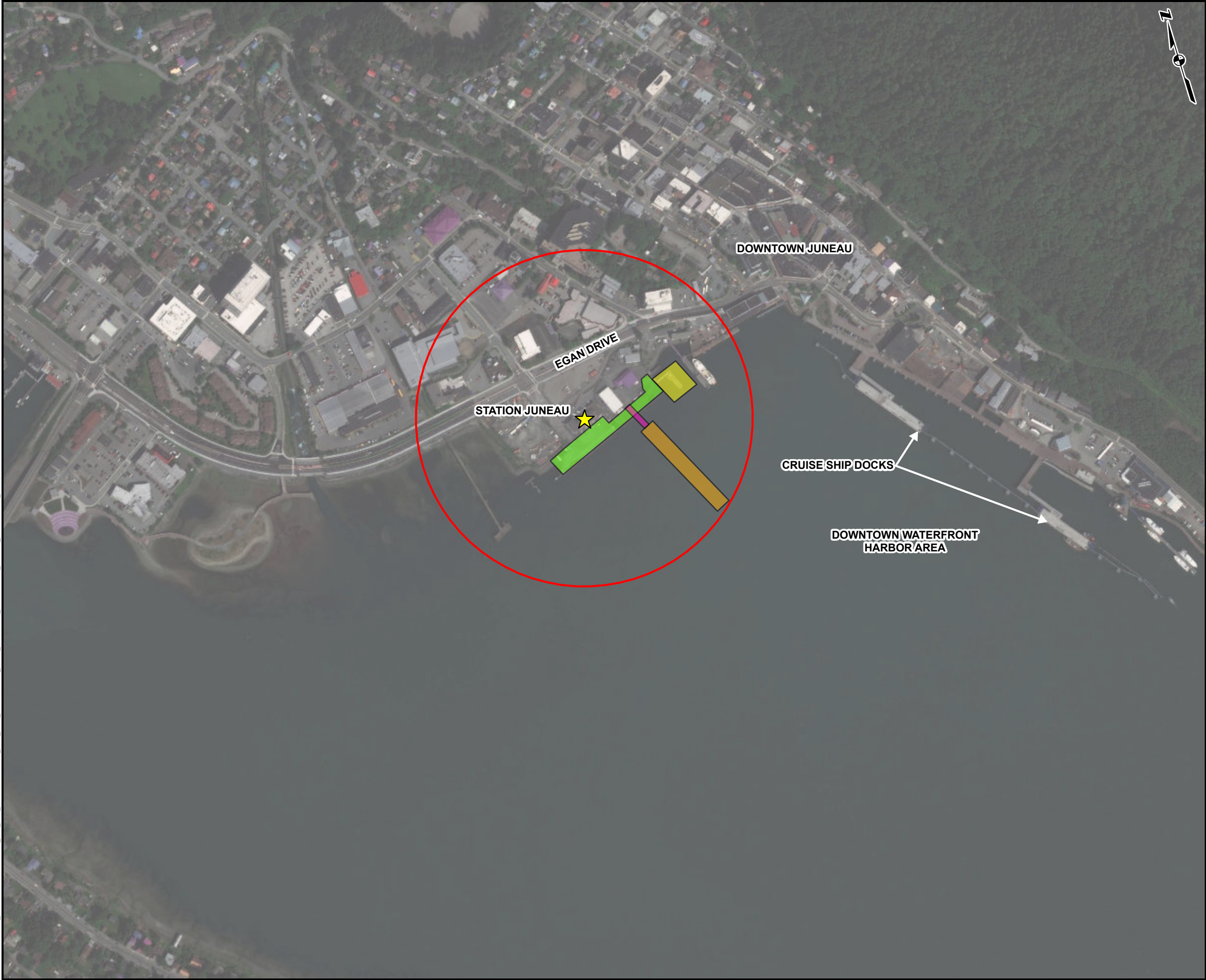
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APPENDIX D

FIGURES

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Document Path: C:\PROJECTS\BRS\USCG_Env_Con_SATOC\BRS0608_JUN_KOD_redrktmPrt_GIST_APRX\JUN_redrktmPrt_EAUJUN_redrktmPrt_EA.aprx



ENVIRONMENTAL ASSESSMENT FOR CUTTER
HOMEPORTING
STATION JUNEAU, ALASKA

PROPOSED ACTION LOCATION AND VICINITY

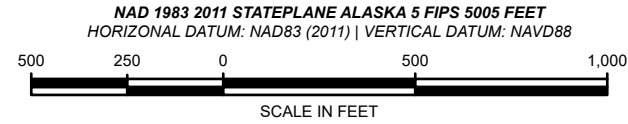


Legend

- ★ Station Juneau
- ROI
- Existing Wharf
- Proposed Trestle
- Proposed Floating Pier
- Proposed Covered Moorage

Notes

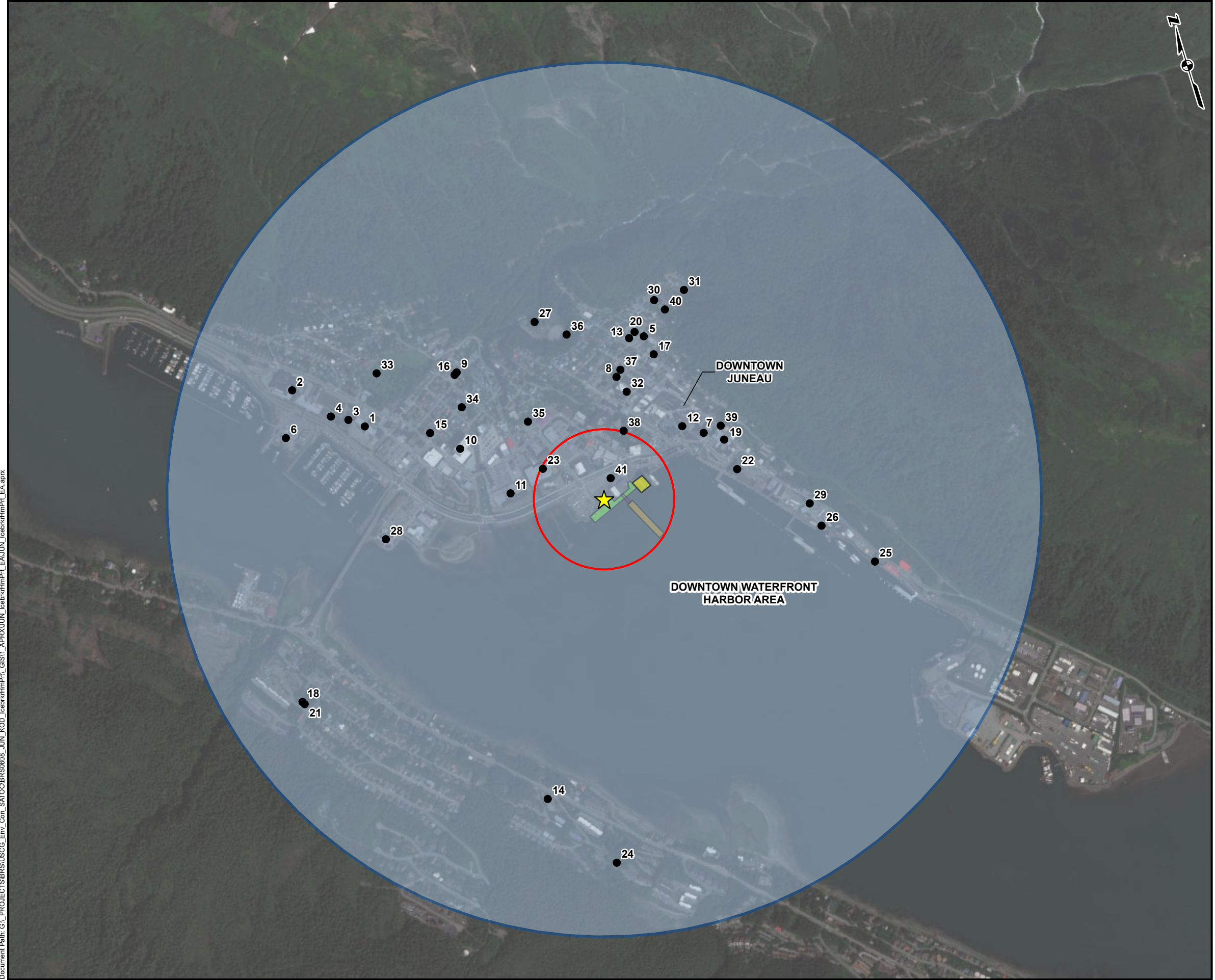
1. Service Layer Credits: Earthstar Geographics, Esri, Maxar, and the GIS User Community.



BRICE SOLUTIONS	PROJECT No.: 131057	DATE: 3/12/2026	FIGURE: D-1
	P.M.: E.G.	DRAWN: K.T.	

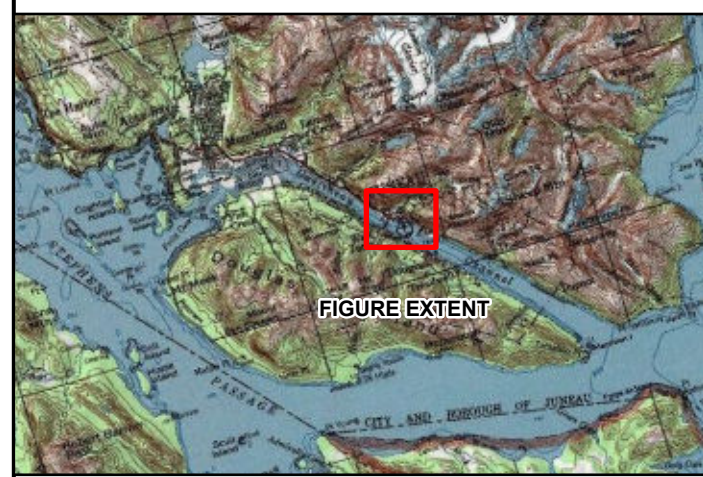
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ENVIRONMENTAL ASSESSMENT FOR CUTTER
HOMEPORTING
STATION JUNEAU, ALASKA

NOISE SENSITIVE RECEPTORS WITHIN 1 MILE OF
THE PROPOSED ACTION



Legend

- ★ Station Juneau
- Noise Sensitive Receptors
- ROI
- Existing Wharf
- Proposed Trestle
- Proposed Floating Pier
- Proposed Covered Moorage
- Project Phase 1-mile Buffer

Notes

1. Service Layer Credits: Earthstar Geographics, Esri, Maxar, and the GIS User Community.

NAD 1983 2011 STATEPLANE ALASKA 5 FIPS 5005 FEET
HORIZONTAL DATUM: NAD83 (2011) | VERTICAL DATUM: NAVD88
1,000 500 0 1,000 2,000
SCALE IN FEET

BRICE SOLUTIONS	PROJECT No.: 131057	DATE: 3/19/2026	FIGURE: D-2
	P.M.: E.G.	DRAWN: K.T.	

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ENVIRONMENTAL ASSESSMENT FOR CUTTER
HOMEPORTING
STATION JUNEAU, ALASKA

SURFACE WATER AND GROUNDWATER



Legend

- ★ Station Juneau
- Anadromous Stream
- ROI
- ▨ Last Chance Basin
- Existing Wharf
- Proposed Trestle
- Proposed Floating Pier
- Proposed Covered Moorage

Wetland Type

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Notes

1. Service Layer Credits: Earthstar Geographics, Esri, Maxar, and the GIS User Community.

NAD 1983 2011 STATEPLANE ALASKA 5 FIPS 5005 FEET
HORIZONTAL DATUM: NAD83 (2011) | VERTICAL DATUM: NAVD88

1,000 500 0 1,000 2,000

SCALE IN FEET



PROJECT No.:

131057

DATE:

3/19/2026

P.M.:

E.G.

DRAWN:

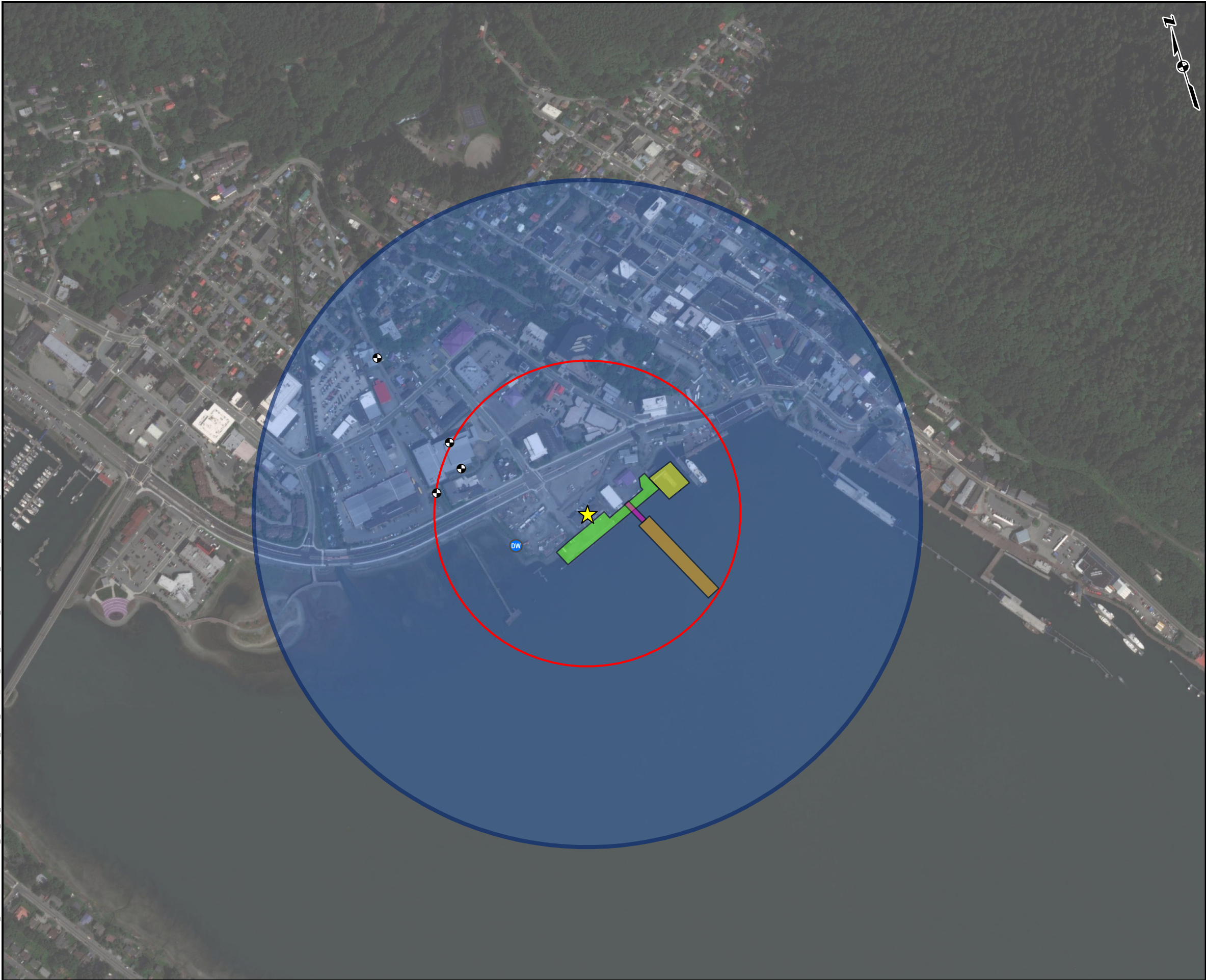
K.T.

FIGURE:

D-3

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ENVIRONMENTAL ASSESSMENT FOR CUTTER
HOMEPORTING
STATION JUNEAU, ALASKA

OFFSITE DRINKING WATER WELLS WITHIN 1,000
FEET OF THE PROPOSED ACTION

Legend

DW

Drinking Water Well

Monitoring Well

★

Station Juneau

ROI

Existing Wharf

Proposed Trestle

Proposed Floating Pier

Proposed Covered Moorage

ROI 1,000-Foot Buffer

Proposed_Covered_Moorage

Abbreviations

WELTS State of Alaska Well Log Tracking System

Notes

1. Well head location data sourced from: ADNR. 2025. Well Log Tracking System (WELTS). <https://dnr.alaska.gov/welts>. Accessed online 4 February 2026.

2. Service Layer Credits: Earthstar Geographics, Esri, Maxar, and the GIS User Community.

NAD 1983 2011 STATEPLANE ALASKA 5 FIPS 5005 FEET
HORIZONTAL DATUM: NAD83 (2011) | VERTICAL DATUM: NAVD88

40020004008001,200

SCALE IN FEET

BRICE
SOLUTIONS

PROJECT No.:
I31057

DATE:
5/11/2026

P.M.:
E.G.

DRAWN:
K.T.

FIGURE:
D-4

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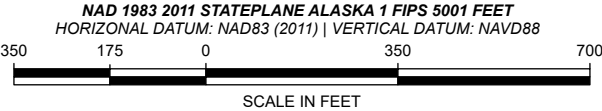
ENVIRONMENTAL ASSESSMENT FOR CUTTER
HOMEPORTING
JUNEAU, ALASKA
AREA OF POTENTIAL EFFECT AND ALASKA
HERITAGE RESOURCES SURVEY SITES

- Legend**
- AHRS Points
 - AHRS Sites
 - APE

Acronyms and Abbreviations
AHRS - Alaska Heritage Resources Survey
APE - Area of Potential Effect

Notes
1. For conceptual purposes only. All locations are approximate.

References
1. Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar
Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,
and the GIS User Community.



BRICE ENGINEERING	PROJECT No.: I21058	DATE: 3/12/2026	FIGURE: D-5
	P.M.: N.G.	DRAWN: Z.L.	

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APPENDIX E
NOISE-SENSITIVE RECEPTORS AND NOISE ATTENUATION
CALCULATION

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Table E-1 Noise-Sensitive Receptors within 1 Mile of the Proposed Action

RECEPTOR ID	RECEPTOR	RECEPTOR TYPE	LOCATION	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
1	Harborview Elementary School	School	1255 Glacier Avenue	2,875
2	Juneau-Douglas High School	School	1639 Glacier Avenue	3,810
3	Yaakoosgé Daakahídi Alternative High School	School	1591 Glacier Avenue	3,165
4	HomeBRIDGE	School	1415 Glacier Avenue	3,315
5	Discovery Southeast	School	416 Harris Street	2,045
6	UAS Technical Education Center	School	Harris Harbor Way	3,655
7	The Learning Connection	School	210 Ferry Way	1,465
8	Discovery Preschool	School	206 4th Street	1,410
9	Juneau Cooperative Preschool	School	400 West 11th Street	2,265
10	Gold Creek Child Development Center	Daycare	709 West 9th Street	1,785
11	SEARHC Internal Medicine Clinic	Hospital	641 West Willoughby Avenue	1,055
12	Front Street Clinic – Primary Care	Medical Facility	225 Front Street	1,325
13	Co-Cathedral of the Nativity of the Blessed Virgin Mary	Place of Worship	416 5th Street	1,930
14	Douglas Island Bible Church	Place of Worship	2770 David Street	3,755
15	Resurrection Lutheran Church	Place of Worship	740 West 10th Street	2,185
16	Kunéix Hídi Northern Light United Church	Place of Worship	400 West 11th Street	2,265
17	Holy Trinity Church	Place of Worship	325 Gold Street	1,780
18	Juneau Unitarian Universalist Fellowship	Place of Worship	211 Cordova Street	4,375
19	EcKankar	Place of Worship	240 South Franklin Street	1,650
20	St. Ann’s Parish Hall	Place of Worship	430 5th Street	2,000
21	Congregation Sukkat Shalom	Place of Worship	211 Cordova Street	4,325
22	Juneau Public Library	Library	292 Marine Way	1,565
23	Alaska State Library and Historical Collections, Alaska State Museum	Library, Museum	395 Whittier Street	710
24	Douglas Rotary Park	Park	2689 David Street	4,471

Table E-1 Noise-Sensitive Receptors within 1 Mile of the Proposed Action

RECEPTOR ID	RECEPTOR	RECEPTOR TYPE	LOCATION	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
25	USS Juneau Memorial	Park	Seawalk, South Franklin Street	3,365
26	Alaska Commercial Fishermen's Memorial	Park	530 North Franklin Street	2,726
27	Cope Park	Park	Cope Park Road	2,255
28	Overstreet Park	Park	West 8th Street	2,585
29	Archie Van Winkle Memorial	Park	Peoples Wharf	2,530
30	Chicken Yard Park	Park	635 6th Street	2,080
31	Cathedral Park	Park	326 5th Street	1,845
32	Bishop Michael Kenny Memorial Peace Park	Park	134 3rd Street	1,130
33	Evergreen Cemetery	Cemetery	601 Seater Street	3,190
34	Casey Shattuck Neighborhood	Residential Area	N/A	1,450
35	Indian Village Neighborhood	Residential Area	N/A	1,300
36	Chicken Ridge Neighborhood	Residential Area	N/A	1,545
37	Juneau Townsite Neighborhood	Residential Area	N/A	1,180
38	Telephone Hill Neighborhood	Residential Area	N/A	1,030
39	Downtown Historic District Neighborhood	Residential Area	N/A	1,200
40	Starr Hill Neighborhood	Residential Area	N/A	1,600
41	Tidelands Neighborhood	Residential Area	N/A	700

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

FHWA 2006 Noise Attenuation Calculation

EQUIPMENT	QUANTITY	L _{MAX50} (DBA)	CONVERT DBA TO L _{LINEAR}	SUM L _{LINEAR} VALUES
Backhoe	1	80	100000000	100000000
Crane Derrick	2	88	630957344.5	1261914689
Dozer	1	85	316227766	316227766
Dump Truck	1	84	251188643.2	251188643.2
Excavator	1	85	316227766	316227766
Front End loader	1	80	100000000	100000000
Mobile Crane	2	83	199526231.5	399052463
Telehandler	1	88	630957344.5	630957344.5
Truck	4	55	316227.766	1264911.064
Floating Dredge	1	82	158489319.2	158489319.2
			Sum L _{Linear}	3535322902
			Total dBA	95.48429087

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

Total dBA represents the combined noise emission of all equipment operating simultaneously.

Green fill denotes the calculated value.

Noise Attenuation Calculation to Below 85 dBA

FACTOR	DESCRIPTION	MEASUREMENT	UNITS
$L_{\max 50}$	Combined noise emission level for construction equipment at 50 feet	95	dBA
D	Distance between equipment and receptor	159	feet
ILbar	Insertion loss of any intervening barriers	0	dB
L10	Perceived sound level at distance D	84.9514576	dBA

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

$L_{\max}$ in dBA = $L_{\max}$ at 50 feet - $20 \log (D/50)$ - ILbar

Calculation assumes no noise intervening barriers.

Yellow fill denotes a value entered by the user.

Green fill denotes the calculated value.

Source: FHWA 2006

Noise Attenuation Calculation for Tidelands Neighborhood Residential Area

FACTOR	DESCRIPTION	MEASUREMENT	UNITS
L_{max50}	Combined noise emission level for construction equipment at 50 feet	95	dBA
D	Distance between equipment and receptor	700	feet
ILbar	Insertion loss of any intervening barriers	0	dB
L10	Perceived sound level at distance D	72.07743929	dBA

Notes:

For definitions, refer to the Acronyms and Abbreviations list.

L_{max} in dBA = L_{max} at 50 feet - $20 \log (D/50)$ - ILbar

Calculation assumes no noise intervening barriers.

Yellow fill denotes a value entered by the user.

Green fill denotes the calculated value.

Source: FHWA 2006

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APPENDIX F
CONTAMINATED SITES IN THE VICINITY OF THE PROPOSED ACTION

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Table F-1 Contaminated Sites in the Vicinity of the Proposed Action

SITE NAME	FILE NUMBER	HAZARD ID	SITE STATUS	SITE DESCRIPTION	INSTITUTIONAL CONTROLS OR OTHER REQUIREMENTS	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
CBJ Fleet Maintenance	1513.26.042	24923	Cleanup Complete	LUST site.	Advance approval required to transport soil or groundwater offsite.	2,500
10th Street Tesoro	1513.26.080	26549	Cleanup Complete – Institutional Controls	Gas station with four 12,000-gallon USTs storing gasoline and diesel. Petroleum-contaminated soil was found during installation of sumps below fuel dispensers. A total of 7 cubic yards was excavated; no effects on groundwater.	Notice of Environmental Contamination and Institutional Controls: Advance notification required to sell/transfer the property. The property may not be used for residential purposes. When contaminated soil is accessible, remediation should occur. No drinking water wells may be drilled onsite.	2,400
Alaska Laundry and Cleaners – Juneau	1513.26.041	24909	Cleanup Complete	Detectable concentrations of GRO and BTEX were found in excavation soil during permanent closure by removal of a 1,000-gallon UST.	Advance approval required to transport soil or groundwater offsite.	2,600
Residence – 1125 Glacier Avenue	1513.38.110	26885	Active	Petroleum contamination was discovered beneath a 675-gallon residential underground heating oil tank. The tank was positioned approximately 1 foot below the building foundation and could not be entirely removed without compromising the building integrity. The tank was emptied and cleaned; ~560 gallons of fuel was pumped out of the tank and ~45 gallons of sludge was removed.	None established.	2,640
Goldbelt Place Building	1513.38.036	2701	Cleanup Complete	Spillage and overfills at a heating oil tank led to soil contamination. The tank was removed, along with 44.5 tons of contaminated soil.	Advance approval required to transport soil or groundwater offsite.	2,270
11 Mile Communications Site	1513.26.003	24489	Cleanup Complete	LUST site. All contaminated soil was excavated and removed during tank closure.	Advance approval required to transport soil or groundwater offsite.	2,110
City of Juneau Downtown Fire Station Tank 4	1513.26.089	27912	Active	Soil contamination was detected adjacent to the spill bucket during the closure of Tank 4, a 550-gallon UST that supplied an emergency generator.	None established.	1,945
Unocal – #6431 Downtown Station	1513.26.019	24534	Cleanup Complete	LUST site. Contaminated soil was excavated and removed from the site.	Advance approval required to transport soil or groundwater offsite.	1,830
GSA Juneau Federal Building	1513.38.032	1982	Active	PCB contamination was identified during an asbestos abatement project when workers discovered oil leaks in the basement of the building. PCB abatement was conducted in 1995. Sampling results indicated that PCB contamination remains in the basement garage and boiler room areas. PCBs were also identified in the exterior building caulking. Mitigation measures have included encapsulation, removal of PCB-containing paint, and caulking replacement.	None established.	1,880
GSA Juneau Federal Building LUST	1513.38.032	24533	Active	During removal of a 1,000-gallon diesel UST used for emergency power generation, suspected petroleum contamination was found near the tank fill pipe, and 3.5 cubic yards of soil was placed directly into supersacks. The excavation continued until the tank was lifted from the ground. Later, a 50,000-gallon UST was excavated, along with 4.5 cubic yards of contaminated soil from around the tank.	Excavation/soil movement restrictions.	1,950
535 Willoughby Building UST Facility 3637	1513.26.088	27865	Cleanup Complete	A 500-gallon gasoline UST was discovered during building demolition. The UST was closed by removal, and the excavated soil was stockpiled. DRO, GRO, and various PAHs and volatile organic compounds were detected in samples less than ADEC cleanup levels.	Advance approval required to transport soil or groundwater offsite.	1,370
Delta Western Juneau Tank Farm	1513.38.025	1179	Cleanup Complete – Institutional Controls	The site consisted of a facility with several ASTs and other infrastructure. There have been historical incidents of spills since 1984 with ongoing contamination from leaks, spills, and overfills up to 1992. In 1995, all tanks and infrastructure were demolished, and 200 cubic yards of contaminated soil were excavated and disposed of. Some contaminated soil could not be removed. Groundwater was monitored between 1994-2001, with contamination decreasing over time.	When contaminated soil is accessible, remediation should occur.	1,080
Prospector Hotel	1513.38.020	1178	Cleanup Complete	Two LUSTs were closed by removal after petroleum upwelling occurred on the beach downgradient of the site. A combination of remedial treatments was used for inaccessible soil contamination adjacent to the UST removal excavation site: the soil 15 feet bgs was encapsulated in cement, while the soil above 15 feet bgs and along pit sidewalls was treated by adding fertilizer and passive aeration piping to promote biodegradation. In 1991, diesel oil was found upwelling on the beach adjacent to the old Delta Western dock across Egan Highway from the USTs servicing the hotel. Booms were used to control the spill; dead fish were identified at the scene.	Advance approval required to transport soil or groundwater offsite.	725

Table F-1 Contaminated Sites in the Vicinity of the Proposed Action

SITE NAME	FILE NUMBER	HAZARD ID	SITE STATUS	SITE DESCRIPTION	INSTITUTIONAL CONTROLS OR OTHER REQUIREMENTS	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
Driftwood Lodge	1513.26.043	24935	Cleanup Complete	LUST site. Soil was excavated and stockpiled. The tank was removed. All samples were non-detect for GRO and BTEX.	Advance approval required to transport soil or groundwater offsite.	1,090
Governor Residence – 716 Calhoun Avenue Lead	1513.38.102	26713	Active	In 2010, 2011, and 2012, renovations of the Alaska Governor's Mansion included the repair of stucco, resurfacing of columns, and the removal of LBP. LBP chips were found in the soil surrounding the residence, concentrated in the gutter system drip line. Some areas of contaminated soil were removed in July 2012. Later that year, additional contamination was discovered. An assessment of soil along the property fenceline found lead greater than ADEC cleanup levels in surface and subsurface soil.	None established.	1,760
Alaska Department of Public Safety – Juneau	1513.26.076	25487	Cleanup Complete	The Division of General Services submitted a UST Taken Out-of-Service or Temporary Closure form and an Empty Tank Affidavit to ADEC after determining that the 1,000-gallon UST was unlikely to pass regulated tank tightness testing requirements. Carson Dorn, Inc. performed a regulated UST site assessment in conjunction with the tank closure-by-removal excavation and determined that the UST and piping were in good condition with no indication of a release. One soil sample exceeded a laboratory reporting limit with DRO concentration of 72.3 mg/kg.	Advance approval required to transport soil or groundwater offsite.	920
Alaska Dept. of Public Safety – Jun	1513.38.057	1981	Cleanup Complete	A heating tank was removed in 1994 with obvious soil contamination. A total of 115 cubic yards of contaminated soil was excavated in the mid-1990s. Borehole data from 2008 indicated that heating oil contamination around the building perimeter was less than ADEC cleanup levels. A de minimis volume of residual contamination greater than this level may still be present near the building foundation.	Advance approval required to transport soil or groundwater offsite.	920
Goldbelt Avenue USTs	1513.38.063	4062	Cleanup Complete	Soil samples taken during the excavation to remove a 1,000-gallon heating oil tank indicated that DRO ranging from 4,390 to 13,600 mg/kg remained in residual soil between 5 to 8 feet bgs. Clean soil was used to backfill the excavation and ADEC approved capping the site. A total of 25 cubic yards of contaminated material was thermally remediated and contaminated water from the tank was treated; the tank was cleaned and then salvaged for scrap metal.	Advance approval required to transport soil or groundwater offsite.	1,990
Residence – W 7th Street	1513.38.035	2973	Cleanup Complete – Institutional Controls	An abandoned heating oil UST and petroleum-impacted soil were discovered during a paving project on West 7th Street. Following removal of the 675-gallon tank, stained soil with visible sheen and petroleum odors was observed. Soil samples from 2 to 7 feet bgs contained DRO in concentrations ranging from 4,600 to 15,000 mg/kg; benzene in the same sample was below instrument detection.	Excavation/soil movement restrictions.	1,825
SOA Legislative Finance Building	1513.38.085	25769	Cleanup Complete – Institutional Controls	In 2011, ADEC was notified of a fuel spill at the State of Alaska Legislative Finance Building at 430 Main Street in Juneau. That spring, the 500-gallon underground heating oil tank was removed to clear an area for a building addition. Later that year, soil contamination was discovered when excavation to install the building footings started. Confirmation samples indicated DRO greater than ADEC cleanup levels remains in the subsurface soil.	Advance approval required to transport soil or groundwater offsite.	1,475
Juneau State Office Building HOT	1513.38.061	4060	Cleanup Complete – Institutional Controls	Closure by removal of an 8,000-gallon underground heating oil tank serving the building was prevented by utility corridor structures and oversized fill material. These also limited the removal of contaminated soil. An investigation revealed that the UST had a leaking return line. DRO and each BTEX compound except benzene were detected. The tank was disconnected and a temporary aboveground tank was installed; depressurizing the system is believed to have halted the fuel release.	Excavation/soil movement restrictions.	1,080
Capital School UST General Tank #2 – Juneau	1513.26.033	24884	Cleanup Complete	LUST site.	Advance approval required to transport soil or groundwater offsite.	1,670
Residence – 242 7th Street	1513.38.104	26754	Active	In 2012, a pinhole leak was discovered in a 500-gallon AST used to store diesel heating fuel. An estimated 80 gallons of diesel fuel were released to the ground and approximately 11 cubic yards of soil were removed. Samples taken from the extent of the excavation indicated DRO remained in soil up to 14,000 mg/kg. A fertilizer treatment port was installed and has been applied every summer since 2012.	None established.	2,155
Alaska State Capitol Building	1513.38.092	26171	Cleanup Complete – Institutional Controls	In 2013, petroleum-contaminated soil was encountered during excavation for a utility project; 3 cubic yards of soil was removed and transported offsite for remediation. The source of the contamination is believed to be a 600-gallon UST and associated piping system used to store crude (bunker) oil formerly used for the coal-fired boilers in the building. Analysis of the excavated soil detected DRO and RRO at 30,400 mg/kg and 40, 400 mg/kg. In 2014, a bunker oil tank was discovered beneath a former diesel UST. Approximately 70 gallons of bunker oil was recovered from the tank, which was decommissioned in-place. A total of 5.8 tons of soil was removed. DRO, GRO, and 1-methylnaphthalene remain greater than ADEC cleanup levels.	Advance approval required to transport soil or groundwater offsite.	1,420

Table F-1 Contaminated Sites in the Vicinity of the Proposed Action

SITE NAME	FILE NUMBER	HAZARD ID	SITE STATUS	SITE DESCRIPTION	INSTITUTIONAL CONTROLS OR OTHER REQUIREMENTS	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
PTI – Juneau Main Street	1513.26.057	24746	Cleanup Complete – Institutional Controls	DRO contamination greater than migration to groundwater cleanup levels was detected in soil near a 675-gallon diesel UST that was closed in-place. The contaminated soil is not accessible. Groundwater is transient and not a drinking water source (the public water system is available). Additional investigation may be required if property improvements allow access to residual soil contamination.	When contaminated soil is accessible, remediation should occur.	1,210
Juneau Community Building	1513.38.075	4461	Cleanup Complete – Institutional Controls	During foundation work and removal of an abandoned underground heating oil tank in 2007, workers discovered petroleum-contaminated soil. Carson Dorn, Inc. collected samples from the remaining soil for laboratory analysis; the highest DRO level detected was 13,300 mg/kg.	When contaminated soil is accessible, remediation should occur.	1,375
Dimond Courthouse UST – Juneau	1513.38.049	3857	Cleanup Complete – Institutional Controls	In 2002, ADEC investigated the appearance of petroleum through openings in the north side basement wall of the Juneau Community Building. The courthouse’s UST piping was closed in-place, and the 10,000-gallon UST was closed by removal and replaced by a 7,500-gallon AST. A total of 70 cubic yards of contaminated material was identified and transported offsite and remediated.	When contaminated soil is accessible, remediation should occur.	1,455
MacKinnon Apartments UHOT	1513.38.033	3270	Cleanup Complete	Unknown quantity of contaminated soil related to scheduled removal of 1,000-gallon underground heating oil tank installed in 1993. A 1998 Phase II Environmental Site Assessment confirmed DRO at 460 ppm; BTEX and PAH were non-detect.	Advance approval required to transport soil or groundwater offsite.	1,670
Goldstein Building	1513.38.034	3271	Cleanup Complete	In 2000, fuel was observed leaking onto a sidewalk on 2nd Street. The oil leak was brought under control when eight USTs and associated piping were removed from beneath the parking lot. The USTs formerly stored heating oil in capacities ranging from 300 to 1,000 gallons. Evidence of heating oil leakage was extensive. A total of 200 cubic yards of contaminated soil was removed with the tanks and associated piping. An unknown volume of residual contamination remained beneath the building. The contaminated material was thermally remediated.	Advance approval required to transport soil or groundwater offsite.	1,475
One Sealaska Plaza	1513.38.121	27263	Active	In 2020, during construction activities at One Sealaska Plaza, workers discovered two areas of possible petroleum contamination and one ~1,000-gallon concrete tank containing an unknown volume of possible petroleum product(s). The UST was pumped and closed as an unregulated heating oil tank.	None established.	1,325
Alaska Federal Savings, Juneau	1513.26.032	24794	Cleanup Complete	A 500-gallon diesel UST was removed, and soil contaminated greater than ADEC cleanup levels was stockpiled onsite. The stockpile was moved offsite for storage and later transported to an approved facility for thermal remediation in accordance with the Site Treatment Plan.	Advance approval required to transport soil or groundwater offsite.	1,770
Holy Trinity Episcopal Church	1513.38.074	4455	Cleanup Complete – Institutional Controls	A historic church burned down in 2006. During the site preparation phase for construction of a new church, test pits were excavated and DRO contamination was discovered in soil and groundwater. The contamination is believed to be migrating onto the property from an unknown upgradient source.	Advance approval required to transport soil or groundwater offsite.	1,960
Pocket Park (aka Gunakadeit Park)	1513.38.088	25922	Cleanup Complete – Institutional Controls	In 2008, a 2,000-gallon UST containing bunker oil was removed from beneath the sidewalk at Pocket Park (also known as Gunakadeit Park). Approximately 80 tons of contaminated soil was removed. Contaminated soil greater than ADEC cleanup levels remained.	Advance approval required to transport soil or groundwater offsite.	1,675
Residence – 517 4th Street HHOT	1513.38.078	4649	Cleanup Complete	In 2007, an aboveground home heating oil tank was damaged and discharged 150 to 225 gallons of diesel fuel. CBJ has removed the contamination from the construction area in the right-of-way, but additional contamination may be located in other areas of the right-of-way. A contractor has installed an in situ treatment system for the application of a fertilizer slurry.	Advance approval required to transport soil or groundwater offsite.	2,300
Residence – Harris Street Lot 2	1513.38.058	3713	Cleanup Complete – Institutional Controls	Heating oil was released from an AST at the back of the residence. Contaminated soil was excavated and removed for offsite remediation. Subsurface vent lines were installed along the south side of the foundation and fertilizer was added to the soil to promote bioremediation of the residual fuel. Structural repairs in 2001 resulted in contaminated soil excavated from the spill site impacting soil along the property line to the south. The neighbor to the south shares a fuel tank fill supply line, which during a staff inspection in 2003, appeared to be responsible for incidental spillage and noticeable fuel odors.	When contaminated soil is accessible, remediation should occur.	2,095
Rawn Way	1513.38.053	3712	Cleanup Complete	A petroleum release occurred in a subsurface utility right-of-way, and 20 cubic yards of DRO- and RRO-impacted soil were removed and transported to a lined stockpile at the Lemon Creek gravel pit. An unknown quantity of DRO contamination remains in the utility corridor; the source of the release was not determined. The stockpiled soil was thermally remediated.	Advance approval required to transport soil or groundwater offsite.	1,855
Commercial Property – 207 South Franklin Street	1513.38.119	27199	Cleanup Complete	In January 2020, during construction to expand the building toward Franklin Street, two buried USTs were discovered on the southeast side of the property. One had an approximate capacity of 1,200 gallons and contained an unknown volume of water. During excavation of the contaminated soil, a second 500-gallon UST was discovered. Both tanks were removed from the site for cleaning and disposal. A total of 48 tons of contaminated soil was excavated and disposed of.	Advance approval required to transport soil or groundwater offsite.	1,745

Table F-1 Contaminated Sites in the Vicinity of the Proposed Action

SITE NAME	FILE NUMBER	HAZARD ID	SITE STATUS	SITE DESCRIPTION	INSTITUTIONAL CONTROLS OR OTHER REQUIREMENTS	APPROXIMATE DISTANCE FROM PROPOSED ACTION (feet)
Garrison-Stone Partnership	1513.38.037	2695	Cleanup Complete	During construction site preparation, oily contamination was encountered on the steep hillside behind the building. Soil samples indicated GRO at concentrations of 600 mg/kg and DRO at 460 mg/kg. Contamination at the site remains but cannot be removed without endangering residents above on the hillside. The source of the contamination is undetermined but is likely a historical release from a residence above on Carrol Way.	Advance approval required to transport soil or groundwater offsite.	2,095
Juneau Cruise Ship Dock	1513.38.017	3269	Informational	Sediments under the CBJ Cruise Ship Dock are contaminated with PAHs. The source is unknown but the PAH contamination is associated with ship activity and historical environmental practices. The approved Interim Removal Action Plan dredged 2,400 cubic yards of contaminated sediments from the site: Area A is submerged land adjacent to Lot 1 Block 83 next to the City Library and Parking Garage. The disposal site plan prescribes that the site be capped with asphalt, a system of piping must capture all leachate, and an oil/water separator must remove any floating petroleum before discharging to marine waters.	None established.	1,500

Notes:
Source: ADEC 2026d-2026pp

APPENDIX G
LIST OF PREPARERS

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LIST OF PREPARERS

This Environmental Assessment has been prepared by Brice Solutions, LLC (Brice) under the direction of USCG, Civil Engineering Unit Juneau, and Station Juneau.

The individuals that contributed to the preparation of this Environmental Assessment are listed in Table G-1.

Table G-1 List of Preparers

NAME/ORGANIZATION	EDUCATION	RESOURCE AREA	YEARS OF EXPERIENCE
Mandy Hope	B.S. Natural Sciences	Project Manager Biological Resources	11
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Megan Ockerman	M.A. History B.A. History	Cultural Resources	9
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Julia Antonson	B.S. Natural Resources and Environmental Sciences	Infrastructure and Utilities	9
Jesse Clous	M.S. Water Resource Management A.S. Geographic Information Systems B.S. City and Regional Planning	Geographic Information System Specialist	15
Laura Eckert	B.S. Psychology	Technical Editor	20

Notes:

For definitions, refer to Acronyms and Abbreviations list.

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