Prince William Sound Ferry Terminals Environmental Assessment

Chenega, Cordova, and Tatitlek Ferry Terminals, Alaska
Federal Project #003290, 0851073, 003289 |
State Project #SFHWY00461, SFHWY00465, SFHWY00460
NEPA ID EAXX-021-70-000-1734709329

Appendix O: National Marine Fisheries Service Letter of Concurrence for Cordova Geotechnical Sampling

Alaska Department of Transportation & Public Facilities

September 2025

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, AK 99802-1668

June 24, 2025

Erin Kendle
U.S. Department of Transportation
Office of Environmental Compliance
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Federal Project #0851073, State Project # SFHWY00465; AKRO-2025-01564, Cordova Geotechnical Sampling

Dear Ms. Kendle:

This letter responds to your request for concurrence from the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) for the proposal to conduct a geotechnical investigation using subsurface soil borings near the Cordova Ferry Terminal in Cordova, Alaska. NMFS received an initial request for an expedited informal consultation on May 29, 2025. After an email request for minor updates to the proposed mitigation measures (removal of unnecessary measures pertaining to North Pacific right whale critical habitat), the Alaska Department of Transportation and Public Facilities (ADOT&PF) submitted a revised request for expedited informal consultation on June 3, 2025. Your request qualified for our expedited review and concurrence because it met our screening criteria and contained all required information on your proposed action, mitigation measures, and its potential effects to listed species and designated critical habitat. Expedited consultation for this proposed action commenced on June 4, 2025.

We reviewed your consultation request document and related materials. Our analysis of this project's effects on listed species and critical habitats relied upon the project description you provided, including all of the proposed mitigation measures (see attachment). Failure to implement any of these mitigation measures may require reinitiation of consultation as per reinitiation trigger number 3, below (50 CFR 402.16(a)(3)).

Based on our knowledge, expertise, and the materials you provided, we concur with your conclusions that the proposed action is not likely to adversely affect Western Distinct Population Segment Steller sea lions (*Eumetopias jubatus*) or Steller sea lion critical habitat. A complete administrative record of this consultation is on file at our office.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on May 6, 2024 (89 FR 24268). We are applying the updated regulations to this consultation. The 2024 regulatory changes, like those from 2019, were intended to improve and clarify the consultation process, and, with one exception from 2024 (offsetting reasonable and prudent measures), were not intended to result in changes to NMFS' existing practice in implementing section 7(a)(2) of the ESA (84 FR at 45015; 89 FR at 24268). We have considered the prior rules and affirm that the substantive analysis and conclusions articulated in this letter of concurrence would not have been any different under the 2019 regulations or pre-2019 regulations.

Reinitiation of consultation is required where discretionary federal involvement or control over the action has been retained or is authorized by law, and if: (1) take of listed species occurs; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

Please direct any questions regarding this letter to Jenna Malek, at jenna.malek@noaa.gov or 907-271-1332 or to our general email inbox at akr.prd.section7@noaa.gov.

Sincerely,

for Anne Marie Eich, Ph.D.
Assistant Regional Administrator
for Protected Resources

Attachments:
ADOT&PF's Consultation Request Letter

cc:	Christy Gentemann	christy.gentemann@alaska.gov
	Nate Geary	nate.geary@alaska.gov
	Benjamin Storey	benjamin.storey@alaska.gov
	Nina Keller	nina.keller@alaska.gov
	Estrella Campellone	estrella.f.campellone@usace.army.mil
	Brenna Hughes	bhughes@pndengineers.com

Updated June 03, 2025 PND Project No.: 241128

Anne Marie Eich, Ph.D.
Assistant Regional Administrator for Protected Resources
NMFS, Alaska Region
PO Box 21668
Juneau, AK 99802

Subject: Request for Initiation of Expedited Informal Consultation under section 7(a)(2) of the Endangered Species Act (ESA) for Prince William Sound (PWS) Ferry Terminal Improvements Geotechnical Investigation.

Dear Dr. Eich:

The U.S. Army Corps of Engineers (USACE) proposes to authorize the proposed project as described below. We request initiation of informal consultation under section 7(a)(2) of the Endangered Species Act for the Prince William Sound (PWS) Ferry Terminal Improvements Geotechnical Investigation in Orca Inlet, Cordova, AK. We have determined that the proposed activity may affect, but is not likely to adversely affect, ESA-endangered Western DPS Steller sea lions (*Eumetopias jubatus*). Our supporting analysis is provided below. We request your written concurrence if you agree with our determinations.

Although the project is within mapped range of the ESA-listed threatened Mexico distinct population segment (DPS) humpback whales (*Megaptera novaeangliae*) and endangered fin whale (*Balaenoptera physalus*), we determined that this project would have no effect on fin whales and humpback whales because available occurrence data strongly suggests they're unlikely to be found within the project execution impacts area. Therefore, humpback and fin whales will not be discussed further in this consultation.

1. PROJECT DESCRIPTION

The proposed project intends to advance up to ten (10) offshore subsurface soil borings. Borings would be advanced up to 180 feet below ground surface, dispersed in an area at approximately 60° 33' 24.1092" N, - 145° 45' 23.472" W, adjacent to the existing berthing dolphins southwest of the Cordova Ferry Terminal in Cordova, Alaska. The borings would utilize a combination of Cone Penetration Testing (CPT), Standard Penetration Test (SPT), sonic drilling, and vibracore methods, as described below and shown on the permit drawings. The results of this survey would be used for geotechnical engineering and environmental testing of proposed dredge materials.

Table 1. Borehole Locations

Description	Latitude	Longitude	Method
PND-1	60° 33' 22.12" N	145° 45' 25.74" W	Vibracore/CPT
PND-2	60° 33' 22.42" N	145° 45' 25.24" W	Vibracore/CPT
PND-3	60° 33' 23.60" N	145° 45' 23.81" W	Vibracore/CPT
PND-4	60° 33' 24.24" N	145° 45' 22.82" W	Vibracore/CPT
PND-5	60° 33' 24.68" N	145° 45' 24.05" W	CPT
PND-6	60° 33' 25.80" N	145° 45' 22.78" W	SPT
PND-7	60° 33' 27.50" N	145° 45' 20.67" W	SPT
PND-8	60° 33' 22.89" N	145° 45' 26.29" W	Vibracore/CPT
PND-9	60° 33' 23.62" N	145° 45' 25.20" W	Vibracore/CPT
PND-10	60° 33' 24.20" N	145° 45' 24.02" W	CPT

Note: Locations are approximate and would be finalized in the field.

1.1 Mobilization

The project vessel (a single 30 to 60 foot-vessel) would originate from Whittier, Valdez, or Cordova and would travel along normal shipping routes. If necessary, a similarly sourced barge would also be utilized as a drilling platform.

1.1 Sonic Drill

A vibratory sonic drill will be used for both the CPT and SPT methods where sediments become too dense to advance to termination depth. PND estimates that the SPT boreholes would require approximately 500 gallons of sea water per day for a maximum of 3 days. The CPT boreholes would require minimal water quantities not to exceed 250 gallons per CPT borehole if sonic drilling is required to advance them. Seawater would be pumped directly from the site and released at mudline during the drilling process.

1.2 CPT Method

The primary method of collecting geotechnical data would be CPT. In the CPT process, a cone with standardized dimensions is pushed hydraulically with a rod into the soil at a standardized rate. As it is pushed deeper and deeper into the soil, the cone can simultaneously measure stress (tip resistance), sleeve friction, and dynamic pore pressure. CPT collects data points continuously as the cone penetrates the soil. No drilling fluids or muds are used in the process.

The CPT rig would advance rod from the existing dock face or from the deck of a barge. The barge would be set in place with a tugboat and anchored in place using anchor points into the mudline. The CPT rod would be pushed through a current damping pipe. The pipe would hang from the barge or dock and would be pushed approximately six feet below mudline.

1.3 SPT Method

Soil samples would be collected at various depths using a split spoon sampler, also known as SPT. The SPT sampling would occur from the deck of the floating dock. This method involves inserting a hollow tube through a casing to the depth to be sampled. The tube is then driven into the ground using a weighted hammer. The tube is retrieved and the soil collected and sent to labs for chemical and mechanical testing. If insufficient soil material is collected at one borehole, soil from an adjacent borehole would also be utilized for testing.

1.4 Vibracore Method

Environmental sampling would occur at borehole locations within the anticipated dredge basin, primarily using a vibracore device to determine subsurface conditions and chemical characteristics. The vibracore would be advanced from the deck of a vessel using an a-frame or jib crane for deployment and retrieval. The soil material collected would be sent to labs for chemical testing.

We expect work to commence in summer/fall 2025 as soon as permits are received and last approximately ten days.

2. DESCRIPTION OF THE ACTION AREA

The action area is defined in the ESA regulations (50 CFR 402.02) as the area within which all direct and indirect effects of the project will occur. The action area is distinct from and larger than the project footprint because some elements of the project may affect listed species some distance from the project footprint. The action area, therefore, extends out to a point where no measurable effects from the project are expected to occur.

For this project, the action area includes a portion of Orca Inlet at the existing Cordova Ferry Terminal. Orca Inlet is an elongated estuary that adjoins the southern portion of Orca Bay within Prince William Sound (PWS); the inlet is approximately 47 km in length and approximately 6 km wide at its widest point. Orca Inlet is a relatively shallow water body when compared to other parts of PWS, with depths reaching up to 16.4 m. Depths around the proposed survey area reach up to 12.4 m at approximately 60.5566°N, -145.7565°W (NOAA 2025). The action area for this project is defined as the area within which project-related noise levels are ≥120 dB_{RMS} re 1µPa or approaching ambient noise levels (i.e., the point where project-related sound attenuates to levels below non-anthropogenic sound).[1] Received sound levels associated with geotechnical drilling are expected to decline to 120 dB_{RMS} re 1µPa within 50 meters of the source. To define the action area, we considered source levels from project vessels, sonic drilling, CPT drilling, and SPT drilling.

The Bureau of Ocean Management (BOEM) sound source list classifies small, medium, and large vessels as <25 m, <100 m, and >100 m. Project vessels fall under medium-class boats, and the associated sound source levels are expected to be within 175 dB (BOEM 2023). Project vessel speeds will follow recommendations listed in Section 3.

A vibratory sonic drill operating between 75 and 2,000 Hz will be used for both the CPT and SPT methods, where sediments become too dense to advance to termination depth. Equivalent sound pressure level of 75 dB(A) at 10 m is anticipated from the sonic drill, resulting in in-air noise capable of behavioral disturbance of pinnipeds within less than 6 m (Sound source information via pers. comm. from Rutger van Es of Royal Eijkelkamp, 02/02/2025).

Sound level increases from CPT testing are negligible; the primary source of increased sound levels during CPT testing results from vessel operating noises (BOEM 2023).

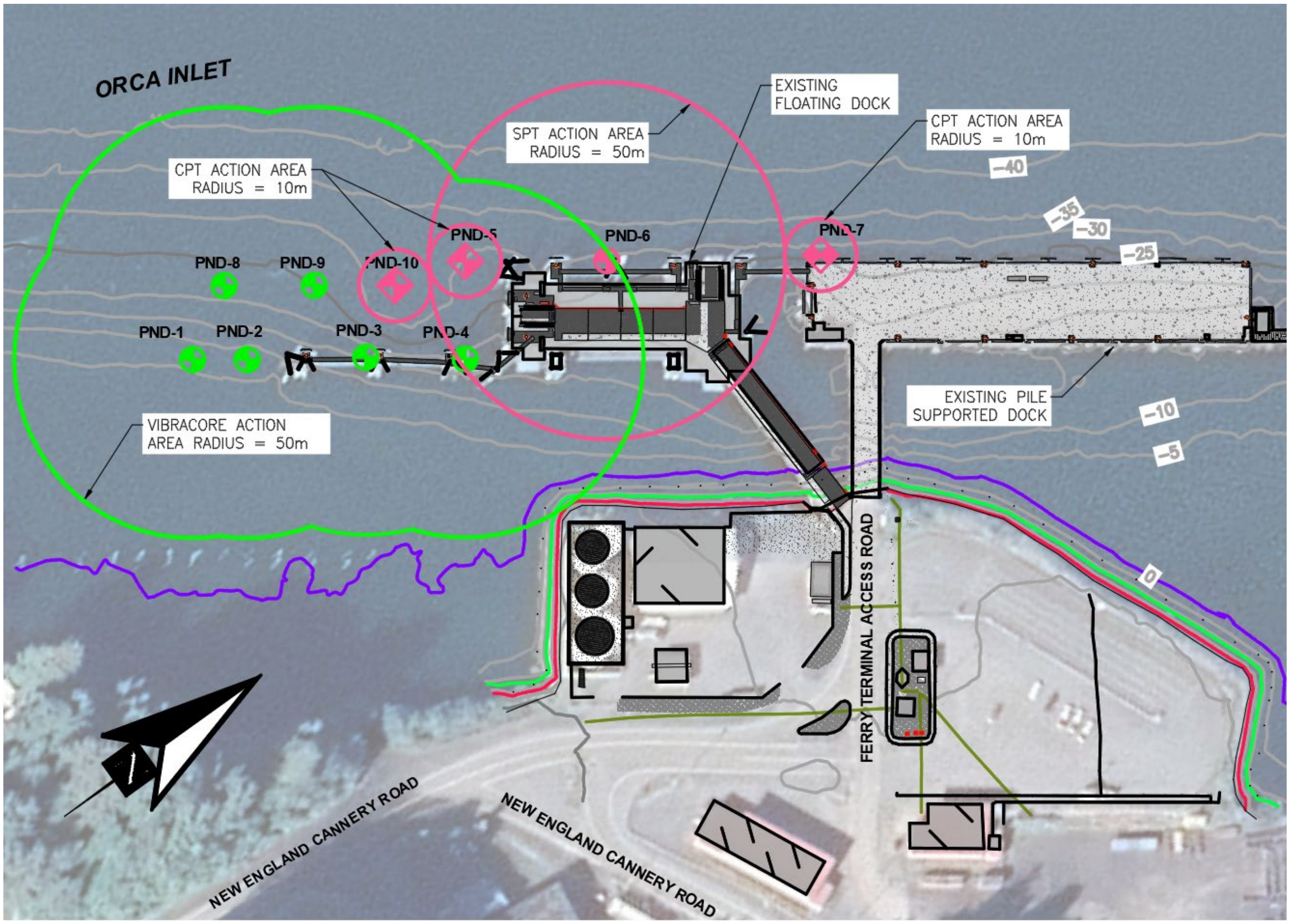
Sound level increase from vibracore drilling is equivalent to vessel engine noises operating at high throttle.

---

[1] We express noise as the sound force per unit micropascals (µPa), where 1 pascal (Pa) is the pressure resulting from a force of one newton exerted over an area of one square meter. Sound pressure level is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure level in acoustics is 1 µPa, and the units for underwater sound pressure levels are decibels (dB) expressed in root mean square (rms), which is the square root of the arithmetic average of the squared instantaneous pressure values.

Typical noise levels for geotechnical drilling were investigated by Erbe and McPherson (2017) and are estimated at 145 to 142 dB re 1 µPa @ 1 m (30 Hz–2 kHz), resulting in an area of behavioral disturbance to NMFS-managed species of approximately 50 meters.

Figure 1. Action Area for Geotechnical Investigation & Environmental Sampling



The project would result in a minor and temporary increase in vessel traffic that would return to baseline conditions following project completion.

3. MITIGATION MEASURES

For all reporting that results from implementation of these mitigation measures, NMFS will be contacted using the contact information specified in Table 3. In all cases, notification will reference the NMFS consultation tracking number.

3.1 GENERAL MITIGATION MEASURES

1. The project proponent 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. If construction activities will occur outside of the time window specified in this letter, the applicant will notify NMFS of the situation at least 60 days prior to the end of the specified time window to allow for reinitiation of consultation.
3. Consistent with AS 46.06.080, trash will be disposed of in accordance with state law. The project proponent will ensure that all closed loops (e.g., packing straps, rings, bands, etc.) will be 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.

3.2 PSO REQUIREMENTS

4. 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.
5. 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 Marine Mammal Protection Act (MMPA) regulations;
    d. proper equipment use;
    e. methodologies in marine mammal observation and data recording and property reporting protocols; and
    f. an overview of PSO roles and responsibilities.
6. PSOs will be individuals independent from the project proponent and must have no other assigned tasks during monitoring periods.
7. The action agency or its designated non-federal representative will provide resumes or qualifications of PSO candidates to consultation biologist and akr.prd.records@noaa.gov approval at least one week prior to in-water work. NMFS will provide a brief explanation of lack of approval in instances where an individual is not approved.
8. PSOs will:
    a. collectively be able to effectively observe the entirety of the shutdown zone;
    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 marine mammal's location and distance from 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; and
   f. possess data forms.

9. 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.

3.3 PSO PROCEDURES

10. PSOs will have the ability, authority, and obligation to order appropriate mitigation response, including shutdown, to avoid takes of listed marine mammals.
11. One or more PSOs will perform PSO duties onsite throughout the authorized activity.
12. Where a team of three or more PSOs are required, a lead observer or monitoring coordinator will be designated.
13. For each in-water activity, PSOs will monitor all marine waters within the indicated shutdown zone radius for that activity (Table 2).

Table 2. Shutdown Zones for Each Activity

Activity	Zone Radius (m)
CPT and sonic drill deployment	10 meters
SPT and vibracore deployment	50 meters

14. PSOs will be positioned such that they will collectively be able to monitor the entirety of each activity's shutdown zone.
15. Prior to commencing any activity listed in Table 2, 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 one or more listed marine mammals are observed within the shutdown zone, the in-water activity will not begin until the listed marine 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 listed in Table 2.
16. The on-duty PSOs will continuously monitor the shutdown zone and adjacent waters during any of the activities listed in Table 2 for the presence of listed marine mammals.
17. Activities listed in Table 2 will only take place:
    a. between sunrise and sunset;
    b. during conditions with a Beaufort Sea State of 4 or less; and
    c. 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).

18. If visibility degrades such that PSOs can no longer ensure that the shutdown zone remains devoid of listed marine mammals during any of the activities listed in Table 2 the crew will stop activities until the entire shutdown zone is visible and the PSOs has indicated that the zone remained devoid of listed marine mammals for 30 minutes.
19. The PSOs will order ongoing activities listed in Table 2 to immediately cease if one or more listed marine mammals has entered, or appears likely to enter, the shutdown zone.
20. If any of the activities listed in Table 2 are shut down for less than 30 minutes due to the presence of listed marine mammals in the shutdown zone, the activities may commence when the PSOs provides assurance that listed marine mammals were observed exiting the shutdown zone. Otherwise, the activities may only commence after the PSO provides assurance that listed marine mammals have not been seen in the shutdown zone for 30 minutes (for cetaceans) or 15 minutes (for pinnipeds).
21. If a listed marine mammals 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 Table 3.
22. Prior to commencing any activity listed in Table 2, or at changes in watch, PSOs will establish a point of contact with the construction crew. The PSO will brief the point of contact as to the shutdown procedures if the PSO observes that listed marine mammals are likely to enter or 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.

3.4 PROJECT-DEDICATED VESSELS (VESSEL AND CREW SAFETY SHOULD NEVER BE COMPROMISED)

23. Vessel operators will:
    a. maintain a watch for marine mammals at all times while underway;
    b. stay at least 91 meters (100 yards) away from listed marine mammals, except that they will remain at least 460 meters (500 yards) away from endangered North Pacific right whales;
    c. travel at less than 5 knots when within 274 meters (300 yards) of a whale;
    d. avoid changes in direction and speed within 274 meters (300 yards) 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. adhere to the Alaska Humpback Whale Approach Regulations when vessels are transiting to and from the project site: (see 50 CFR §§ 216.18, 223.214, and 224.103(b); these regulations apply to all humpback whales). Specifically, 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 100 yards of any humpback whale:
        ii. cause a vessel or other object to approach within 100 yards of any humpback whale;

or

iii. disrupt the normal behavior or prior activity of a humpback whale by any other act or omission.

24. 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 (100 yards) of the vessel, and if maritime conditions safely allow, the engine will be put in neutral and the whale will be allowed to pass beyond the vessel, except that vessels will remain 460 meters (500 yards) from North Pacific right whales.
25. Vessels will not allow lines to remain in the water unless both ends are under tension and affixed to vessels or gear.

3.5 Vessel Transit, Western DPS Steller Sea Lions, and their Designated Critical Habitat

26. Vessels will not approach within 5.5 kilometers (3 nautical miles) of rookery sites listed in 50 CFR § 224.103(d); and
27. Vessels will not approach within 914 meters (3,000 feet) of any Steller sea lion haulout or rookery.

3.6 Data Collection

PSOs have the following responsibilities for data collection:

28. PSOs will record observations on data forms or into electronic data sheets.
29. The project proponent will ensure that PSO data will be submitted electronically in a format that can be queried such as a spreadsheet or database (i.e., digital images of data sheets are not sufficient).
30. 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., percent cloud cover, percent glare, visibility) and sea state where the Beaufort Wind Force Scale will be used to determine sea state (https://www.weather.gov/mfl/beaufort);
    d. species, numbers, and, if possible, sex and age class of observed listed marine mammal;
    e. the 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 observer to the listed species, and minimum distance from the predominant sound-producing activity to listed species;

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 that normal operations were affected by the presence of listed species.

3.7 Reporting

3.7.1 Unauthorized Take

31. If a listed marine mammal is determined by the PSO to have 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. the 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. the time the animal(s) was 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.

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

32. If the PSO observes injured, stranded, sick, or dead marine mammals, 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, data submitted to NMFS in response to stranded marine mammals will include date/time, location of stranded marine mammal, species and number of stranded individuals, description of the stranded marine mammal's condition, event type (e.g., entanglement, dead, floating), and behavior of live-stranded marine mammals.

3.7.3 Illegal Activities

33. If the PSO observes listed marine mammals or other marine mammals being disturbed, harassed, harmed, injured, or killed (e.g., feeding or unauthorized harassment), these activities will be reported to NMFS Alaska Region Office of Law Enforcement (Table 3; 1-800-853-1964).
34. Data submitted to NMFS will include date/time, location, description of the event, and any photos or videos taken.

3.7.4 North Pacific Right Whales

35. All observations of North Pacific right whales will be reported to NMFS within 24 hours. Photographs and/or video should be taken if possible to aid in Photo ID of individual animals. Reports will include all applicable information that will be included in a final report.

3.7.5 Extralimital Sightings

36. All observations of ESA-listed marine mammal species not considered in this consultation will be reported to NMFS within 72 hours. Photographs and/or video should be taken if possible to aid in Photo ID of individual animals. Reports will include all applicable information that would be included in a final report.

3.7.6 Final Report

37. A final report will be submitted 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 results of PSO monitoring conducted during the in-water activities.

38. The final report for projects will include:
    a. summaries of monitoring efforts, including dates and times of construction, dates and times of monitoring, dates and times and duration 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 sizes.
    c. number 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 time of observation;
    f. any photos or videos taken of marine mammals;
    g. digital, queryable documents containing PSO observations and records, and digital, queryable reports.

Table 3. Summary of Agency Contact Information

Reason for Contact	Contact Information
Consultation Questions & Unauthorized Take	akr.prd.section7@noaa.gov
Reports & Data Submittal	akr.prd.records@noaa.gov

Reason for Contact	Contact Information
Stranded, Injured, or Dead Marine Mammals	Stranding Hotline (24/7 coverage) 1-877-925-7773
Oil Spill & Hazardous Materials Response	U.S. Coast Guard National Response Center: 1-800-424-8802 and AKRNMFSSpillResponse@noaa.gov
Illegal Activities *(not related to project activities, e.g., feeding, unauthorized harassment, or disturbance to marine mammals)*	NMFS Office of Law Enforcement (AK Hotline): 1-800-853-1964
In the event that this contact information becomes obsolete	NMFS Anchorage Main Office: 907-271-5006 or NMFS Juneau Main Office: 907-586-7236

4. LISTED SPECIES AND CRITICAL HABITAT

4.1 Western DPS Steller Sea Lion

The Steller sea lion (*Eumetopias jubatus*) was listed as a threatened species under the ESA on December 4, 1990 (55 FR 49204, November 26, 1990). On June 4, 1997, NMFS reclassified Steller sea lions into two DPS's based on genetic studies and other information (62 FR 24345, May 5, 1997); at that time the eastern DPS was listed as threatened and the Western DPS was listed as endangered. On December 4, 2013, the eastern DPS was removed from the endangered species list (78 FR 66140, November 4, 2013).

Steller sea lions range throughout the North Pacific Ocean from Japan, east to Alaska, and south to central California (Loughlin et al. 1984). They range north to the Bering Strait, with significant numbers at haul-outs on St. Lawrence Island in the spring and fall (Kenyon and Rice 1961). Breeding range extends along the northern edge of the North Pacific Ocean from the Kuril Islands, Japan, through the Aleutian Islands and Southeast Alaska, and south to California (Loughlin et al. 1984). Based on Hastings et al. (2020), NMFS concludes that Western DPS Steller sea lions are common north of Sumner Strait.

Rookery and haulout sites are located on isolated islands, rocky shorelines, and jetties from Cape Suckling, through the Bering Sea and into the Sea of Okhotsk (Muto et al. 2020). Steller sea lions are not known to migrate annually, but individuals may widely disperse outside of the breeding season (Raum-Suryan et al. 2004; Trites et al. 2006; Lander et al. 2009; Jemison et al. 2013; Fritz et al. 2016; Sigler et al. 2017). Males arrive at breeding sites in May with females following shortly afterwards, and pups are born from mid-May to early July, with a peak in mid-June. During summer, Steller sea lions feed mostly over the continental shelf and shelf edge. Females attending pups forage within 20 nm of breeding rookeries (Merrick and Loughlin 1997), which is the basis for designated critical habitat around rookeries and major haulout sites.

The foraging strategy of Steller sea lions is strongly influenced by seasonality of sea lion reproductive activities on rookeries and the ephemeral nature of many prey species. Steller sea lions are generalist predators that eat a variety of fishes and cephalopods (Pitcher and Calkins 1981; Calkins and Goodwin

1988; NMFS 2008b), and occasionally other marine mammals and birds (Pitcher and Fay 1982; NMFS 2008b).

The ability to detect sound and communicate underwater is important for a variety of Steller sea lion life functions, including reproduction and predator avoidance. NMFS categorizes Steller sea lions in the otariid pinniped functional hearing group, with an applied frequency range between 60 Hz and 39 kHz in water (NMFS 2018).

4.1.1 WDPS Steller sea lion critical habitat

NMFS designated critical habitat for Steller sea lions on August 27, 1993 (58 FR 45269; Figure 2). In Alaska, designated critical habitat includes the following areas as described at 50 CFR § 226.202.

1. Terrestrial zones that extend 3,000 feet (0.9 km) landward from each major haulout and major rookery in Alaska.
2. Air zones that extend 3,000 feet (0.9 km) above the terrestrial zone of each major haulout and major rookery in Alaska.
3. Aquatic zones that extend 3,000 feet (0.9 km) seaward of each major haulout and major rookery in Alaska that is east of 144° W longitude.
4. Aquatic zones that extend 20 nm (37 km) seaward of each major haulout and major rookery in Alaska that is west of 144° W longitude.
5. Three special aquatic foraging areas: the Shelikof Strait area, the Bogoslof area, and the Seguam Pass area, as specified at 50 CFR § 226.202(c).

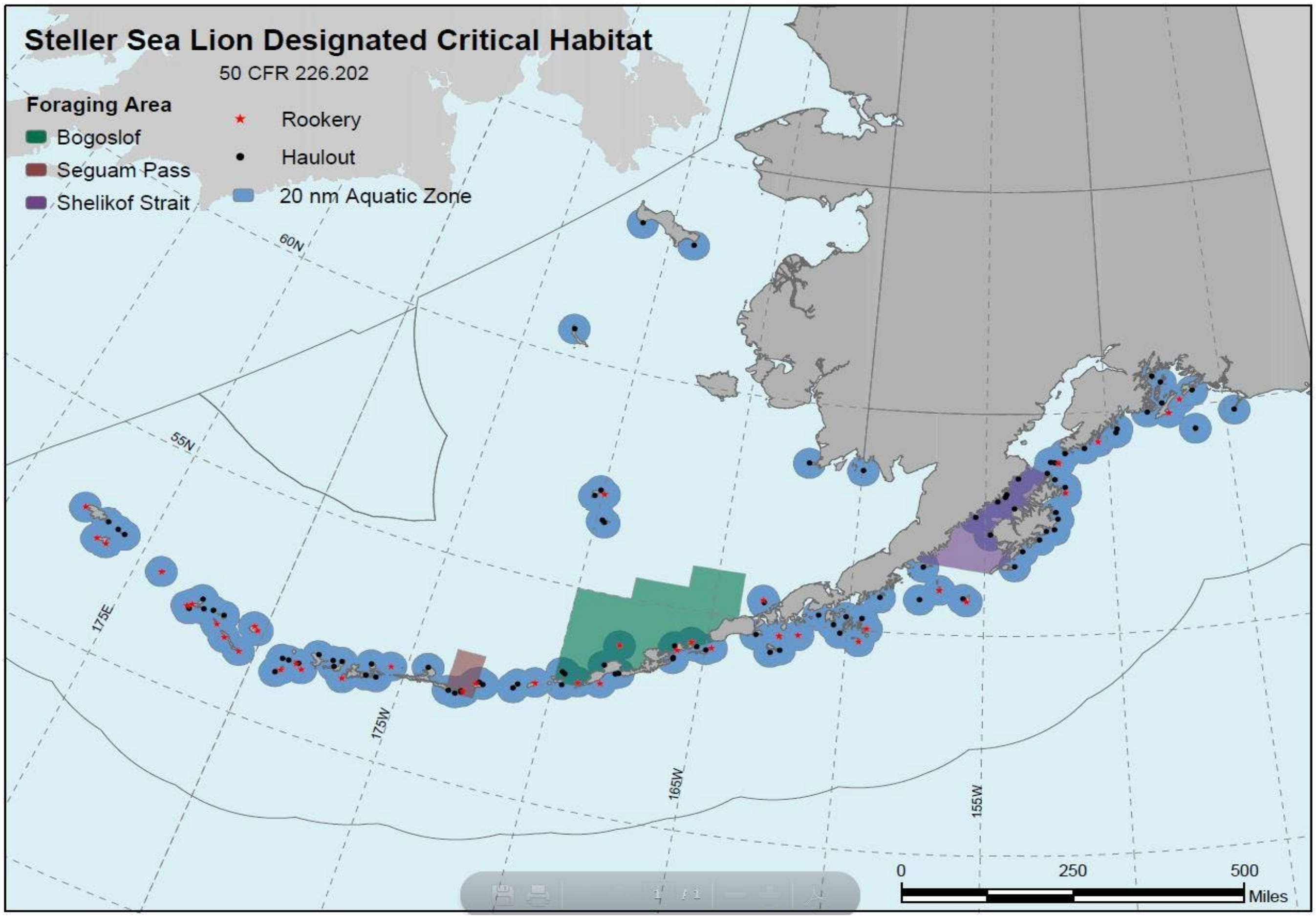


Figure 2. Designated Steller sea lion critical habitat in Alaska.

4.1.2 WDPS STELLER SEA LIONS AND CRITICAL HABITAT IN THE ACTION AREA

Steller sea lions are present in the Cordova area year-round and are drawn to areas with high forage values such as anadromous streams and fish processing plants. The project is located less than 100 meters away from the Copper River Seafoods, and several anadromous streams were identified near the project area (ADF&G 2025). Additionally, sea lions were frequently spotted on navigational buoys or foraging near Humpback Creek, an anadromous stream approximately 7.5 kilometers east of the project, particularly in fall and winter months (Scheel et al. 1998 via URS Group, Inc. 2006). The nearest documented Steller sea lion sighting occurred on March 19, 2023, and was approximately 428.2 meters west of the proposed project (GBIF 2025).

No Steller sea lions were observed over the 58 days of marine mammal monitoring during the Cordova Harbor Rebuild Project. None of the 788 authorized Level B takes or the 107 authorized Level A takes for Steller sea lions were used" (Solstice 2024).

5. EFFECTS DETERMINATIONS

For purposes of the ESA, "effects of the action" means all consequences to listed species or critical habitat that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR § 402.02). The applicable standard to find that a proposed action is "not likely to adversely affect" listed species or critical habitat is that all of the effects of the action are expected to be insignificant, extremely unlikely to occur, or completely beneficial. "Insignificant effects" relate to the magnitude of the impact and are those that one would not be able to meaningfully measure, detect, or evaluate; insignificant effects should never reach the scale where take occurs.

The potential effects of the proposed action on listed species and critical habitat include noise impacts and temporary seabed disturbance. Project mitigation measures are anticipated to prevent negative effects to protected species.

5.1 ACOUSTIC THRESHOLDS

We followed NMFS standards to determine conservative thresholds of underwater sound pressure levels, expressed in root mean square (rms), from broadband sounds that cause behavioral disturbance, and referred to as Level B harassment under section 3(18)(A)(ii) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. § 1362(18)(A)(ii)):

- continuous sound: 120 dB_{RMS} re 1µPa

The generalized hearing range for each hearing group is provided in Table 4.

Table 4. Underwater marine mammal hearing groups (NMFS 2018).

Hearing Group	ESA-listed Marine Mammals In the Action Area	Generalized Hearing Range[1]
Otariid pinnipeds (OW) *(sea lions and fur seals)*	Western DPS Steller sea lion	60 Hz to 39 kHz
[1]Represents the generalized hearing range for the entire group as a composite (i.e., all species within the group), where individual species' hearing ranges are typically not a broad. Generalized hearing range chosen based on ~65 db threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall et al. 2007) and PW pinniped (approximation).		

In addition, NMFS uses the following thresholds for in-air sound pressure levels from broadband sounds that cause Level B behavioral disturbance under section 3(18)(A)(ii) of the MMPA (16 U.S.C. § 1362(18)(A)(ii)):

- 100 dB_{rms} re 20µPa for non-harbor seal pinnipeds

5.1.1 HEARING LOSS, DISCOMFORT, OR INJURY

Project-related noise from geotechnical investigation activities could result in localized, temporary disturbance within the area. Permanent, partial, or full hearing loss may occur if marine mammals are exposed to noise above tolerance thresholds. Marine mammals exposed to high sound levels may experience non-auditory physiological effects such as increased stress, neurological effects, bubble formation, resonance effects, and other organ or tissue damage.

Although the proposed work would introduce continuous sounds underwater and in the air, these activities are not expected to cause hearing loss, discomfort, or injury due to the implementation of proposed mitigation measures, including the implementation of a shutdown zone and the use of PSOs.

5.1.2 BEHAVIORAL CHANGES

Marine mammals may exhibit behavioral responses following exposure to high levels of underwater noise produced during geotechnical investigation activities. Typical behavioral responses include increased swimming speed, changes in drive profiles, disruption of foraging, increased surfacing time, cessation or reduction of vocalizations, and avoidance of the area.

Implementation of proposed mitigation measures, including the implementation of a shutdown zone and the use of PSOs, is expected to mitigate the potential for behavioral disturbance.

5.1.3 AUDITORY MASKING

Masking of auditory stimuli may occur as a result of underwater noise produced during geotechnical investigation. Masking can impact intraspecific communication and environmental awareness in cetaceans and pinnipeds.

Marine mammals in Orca Inlet are continuously exposed to underwater noise related to vessels. The project will implement mitigation measures to avoid and minimize the impact of auditory masking on marine mammals.

5.2 TEMPORARY SEABED DISTURBANCE FROM SOIL BORINGS

Up to ten offshore subsurface soil borings will be advanced up to 108 feet below the ground surface adjacent to the existing berthing dolphins just southwest of the Cordova Ferry Terminal. CPT, SPT, sonic drilling, and vibracore methods will result in a minor and temporary disturbance to the seabed that will typically return to normal conditions within one season or less due to the movement of sediment perpetuated by currents and the small size of the sample core. The temporary disturbances will not take place within any designated critical habitats, therefore, the effects on the listed marine species are insignificant.

6. CONCLUSION

Based on the analysis that all effects of the proposed action will be insignificant and/or discountable, we have determined that the Prince William Sound Ferry Terminal Improvements; Geotechnical

Investigation & Environmental Sampling is not likely to adversely affect any listed species or critical habitat under NMFS's jurisdiction. We have used the best scientific and commercial data available to complete this analysis. We request your concurrence with this determination.

Please direct any questions regarding this letter to Brenna Hughes, bhughes@pndengineers.com, 907-646-2773.

Sincerely,

7. REFERENCES

ADF&G. 2025. Anadromous Waters Catalog Interactive Map. Government Agency. Alaska Fish Resource Monitor. 2025. Accessed via https://experience.arcgis.com/experience/1a4eb07b42ff4ebb8c71ba45adaedf0c.

Allen, B. M., and R. P. Angliss. 2011. Alaska marine mammal stock assessments, 2010. U.S. Dept. of Commerce, NOAA, NMFS, Alaska Fisheries Science Center, Seattle, WA, May 2011. NOAA Technical Memorandum NMFS-AFSC-223, 292 p.

BOEM. 2023. Sound Source List: A Description of Sounds Commonly Produced During Ocean Exploration and Industrial Activity. BOEM OCS 2023-016. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management, Center for Marine Acoustics.
Accessed via https://www.boem.gov/sites/default/files/documents/environment/center-marine-acoustics/Sound%20Source%20List_Mar2023.pdf.

Calkins, D. G., and E. Goodwin. 1988. Investigation of the declining sea lion population in the Gulf of Alaska. Alaska Dept. of Fish and Game, Anchorage, AK, August 1988, 76 p.

Carretta, J. V., K. A. Forney, E. M. Oleson, D. W. Weller, A. R. Lang, J. Baker, M. M. Muto, B. Hanson, A. J. Orr, H. Huber, M. S. Lowry, J. Barlow, J. E. Moore, D. Lynch, L. Carswell, and R. L. B. Jr. 2020. U.S. Pacific marine mammal stock assessments: 2019. NOAA Technical Memorandum NMFS-SWFSC-629.

Carretta, J. V., E. M. Oleson, K. A. Forney, M. M. Muto, D. W. Weller, A. R. Lang, J. Baker, B. Hanson, A. J. Orr, J. Barlow, J. E. Moore, and R. L. B. Jr. 2022. U.S. Pacific Marine Mammal Stock Assessments: 2021. NMFS-SWFSC-663.
Accessed via https://repository.library.noaa.gov/view/noaa/44406.

Clarke, J., A. Brower, M. Ferguson, A. Willoughby, and A. Rotrock. 2020. Distribution and relative abundance of marine mammals in the eastern Chukchi Sea, eastern and western Beaufort Sea, and Amundsen Gulf, 2019 annual report. OCS Study BOEM 2020-027.

Erbe, C. 2002. Hearing abilities of baleen whales. Defense Research and Development Canada, Ottawa, Ontario, October 2002. DRDC Atlantic CR 2002-065.

Erbe, C., and C. McPherson. 2017. Underwater noise from geotechnical drilling and standard penetration testing. The Journal of the Acoustical Society of America 142(3): EL281–85.
Accessed via https://doi.org/10.1121/1.5003328.

Es, R. van. 2025. Personal Communication with Rutger van Es of Royal Eijkelkamp Regarding Geotechnical Sound Levels.

Fritz, L., K. Sweeney, R. Towell, and T. Gelatt. 2016. Aerial and ship-based surveys of Steller sea lions... NOAA Technical Memorandum NMFS-AFSC-321.

GBIF. 2025. Steller Sea Lion Search Occurrences.
Accessed via https://www.gbif.org/occurrence/search?q=Eumetopias%20jubatus&geometry=POLYGON((-145.77342%2060.54894,-145.73857%2060.54894,-145.73857%2060.57239,-145.77342%2060.57239,-145.77342%2060.54894)).

Hastings, K. K., M. J. Rehberg, G. M. O'Corry-Crowe, G. W. Pendleton, L. A. Jemison, and T. S. Gelatt. 2020. Demographic consequences and characteristics of recent population mixing and colonization in Steller sea lions. Journal of Mammalogy 101(1):107-120.

Jemison, L. A., G. W. Pendleton, L. W. Fritz, K. K. Hastings, J. M. Maniscalco, A. W. Trites, and T. S. Gelatt. 2013. Inter-population movements of Steller sea lions in Alaska... PLoS One 8(8):e70167.

Kenyon, K. W., and D. W. Rice. 1961. Abundance and distribution of the Steller sea lion. Journal of Mammalogy 42(2):223-234.

Lander, M. E., T. R. Loughlin, M. G. Logsdon, G. R. VanBlaricom, B. S. Fadely, and L. W. Fritz. 2009. Regional differences in oceanographic habitat used by Steller sea lions. Ecological Applications 19(6):1645-59.

Loughlin, T. R., D. J. Rugh, and C. H. Fiscus. 1984. Northern sea lion distribution and abundance: 1956-80. Journal of Wildlife Management 48(3):729-740.

Merrick, R. L., and T. R. Loughlin. 1997. Foraging behavior of adult female and young-of-the-year Steller sea lions. Canadian Journal of Zoology 75(5):776-786.

Muto, M. M., V. T. Helker, R. P. Angliss, et al. 2018. Alaska marine mammal stock assessments, 2017. NOAA Tech. Memo. NMFS-AFSC-378, 382 p.

Muto, M. M., V. T. Helker, B. J. Delean, et al. 2020. Alaska marine mammal stock assessments, 2019. NOAA Tech. Memo. NMFS-AFSC-404, 395 p.

Muto, M. M., V. T. Helker, B. J. Delean, et al. 2022. Alaska marine mammal stock assessments, 2021. NOAA Tech. Memo. NMFS-AFSC-441, 398 p.

NMFS. 2008b. Recovery plan for the Steller sea lion (Eumetopias jubatus). NOAA, NMFS, Silver Spring, MD, March 2008, 325 p.

NMFS. 2018. Revision to technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing (Version 2.0). NOAA Tech. Memo. NMFS-OPR-55, 178 p.

Pitcher, K. W., and D. G. Calkins. 1981. Reproductive biology of Steller sea lions in the Gulf of Alaska. Journal of Mammalogy 62(3):599-605.

Pitcher, K. W., and F. H. Fay. 1982. Feeding by Steller sea lions on harbor seals. The Murrelet:70-71.

Raum-Suryan, K. L., M. J. Rehberg, G. W. Pendleton, K. W. Pitcher, and T. S. Gelatt. 2004. Development of dispersal, movement patterns, and haul-out use by pup and juvenile Steller sea lions. Marine Mammal Science 20(4):823-850.

Sigler, M. F., S. M. Gende, and D. J. Csepp. 2017. Association of foraging Steller sea lions with persistent prey hot spots in southeast Alaska. Marine Ecology Progress Series 571:233-243.

Solstice. 2024. Cordova Harbor Rebuild Project Protected Species Final Report. Accessed via https://www.fisheries.noaa.gov/s3/2024-12/CordovaAK-2024IHA-Year1MonRep-OPR1.pdf.

Trites, A. W., B. P. Porter, V. B. Deecke, A. P. Coombs, M. L. Marcotte, and D. A. Rosen. 2006. Insights into the timing of weaning and the attendance patterns of lactating Steller sea lions. Aquatic Mammals 32(1):85.

URS Group, Inc. 2006a. Cordova Oil Spill Response Facility Final EIS. U.S. Department of the Interior, Bureau of Indian Affairs, Alaska Region.

8. INDEX

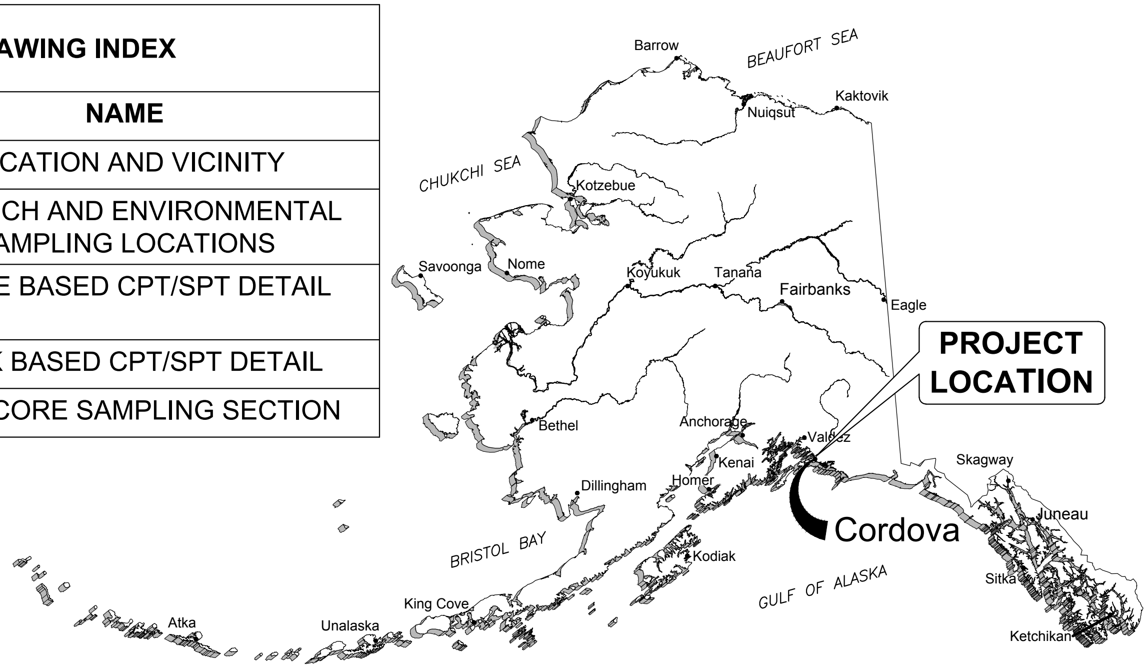
8.1 TABLES

8.2 FIGURES

8.3 APPENDICES

Appendix A. Project Drawings

DRAWING INDEX	
SHEET	NAME
01	LOCATION AND VICINITY
02	GEOTECH AND ENVIRONMENTAL SAMPLING LOCATIONS
03	BARGE BASED CPT/SPT DETAIL
04	DOCK BASED CPT/SPT DETAIL
05	VIBRACORE SAMPLING SECTION



STATE OF ALASKA

TIDE DATA	
HIGH TIDE LINE	16.2
MEAN HIGHER HIGH WATER (MHHW)	12.6
MEAN HIGH WATER (MHW)	11.7
MEAN LOWER LOW WATER (MLLW)	0

PURPOSE:
TO COLLECT SOIL INFORMATION FOR FERRY TERMINAL UPGRADES

DATUM: MLLW = 0.0'

LAT: 60° 33' 22" N
LONG: 145° 45' 24" W
S: 21 T: 15 S R: 3W
COPPER RIVER MERIDIAN

LOCATION AND VICINITY

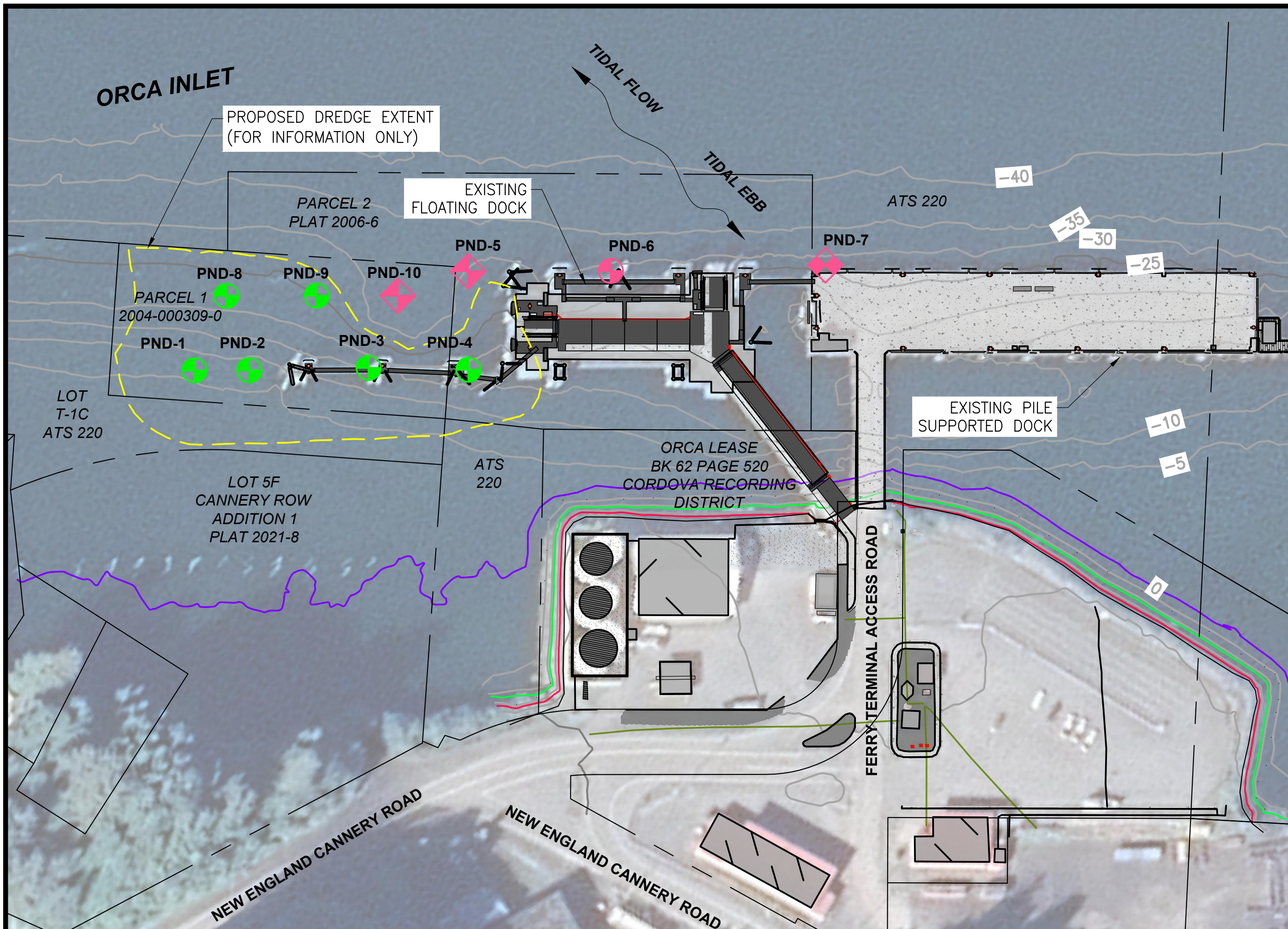
POA-XXXX-XXXX

ADOT&PF
ENGINEERING SERVICES DIVISION
SOUTHCOAST REGION

PRINCE WILLIAM SOUND FERRY TERMINAL UPGRADES GEOTECH & SAMPLING FIELD INVESTIGATION

IN: ORCA INLET
BY: CORDOVA, AK

5/6/2025 SHEET **1** of **5**



DESCRIPTION	LATITUDE	LONGITUDE
PND-1	60° 33' 22.12" N	145° 45' 25.74" W
PND-2	60° 33' 22.42" N	145° 45' 25.24" W
PND-3	60° 33' 23.60" N	145° 45' 23.81" W
PND-4	60° 33' 24.24" N	145° 45' 22.82" W
PND-5	60° 33' 24.68" N	145° 45' 24.05" W
PND-6	60° 33' 25.80" N	145° 45' 22.78" W
PND-7	60° 33' 27.50" N	145° 45' 20.67" W
PND-8	60° 33' 22.89" N	145° 45' 26.29" W
PND-9	60° 33' 23.62" N	145° 45' 25.20" W
PND-10	60° 33' 24.20" N	145° 45' 24.02" W

LEGEND

- HIGH TIDE LINE (+16.8')
- MEAN HIGH WATER (+11.5')
- MEAN LOWER LOW WATER (0.0')
- VIBRACORE/CPT LOCATION
- SPT LOCATION
- CPT LOCATION

NOTES:

1. LOCATIONS ARE APPROXIMATE AND WILL BE FINALIZED IN THE FIELD
2. CPT IS THE PRIMARY METHOD FOR COLLECTING GEOTECHNICAL DATA. IF SEDIMENTS BECOME TOO DENSE FOR THE CPT CONE TO PENETRATE, A VIBRATORY SONIC DRILL ATTACHMENT WILL BE OPERATED IN TANDEM WITH THE CPT

N

0 40 80 160 240 FT

PURPOSE:
TO COLLECT SOIL INFORMATION FOR FERRY TERMINAL UPGRADES

DATUM: MLLW = 0.0'

LAT: 60° 33' 22" N
LONG: 145° 45' 24" W
S: 21 T: 15 S R: 3W
COPPER RIVER MERIDIAN

GEOTECH AND ENVIRONMENTAL SAMPLING LOCATIONS

POA-XXXX-XXXX

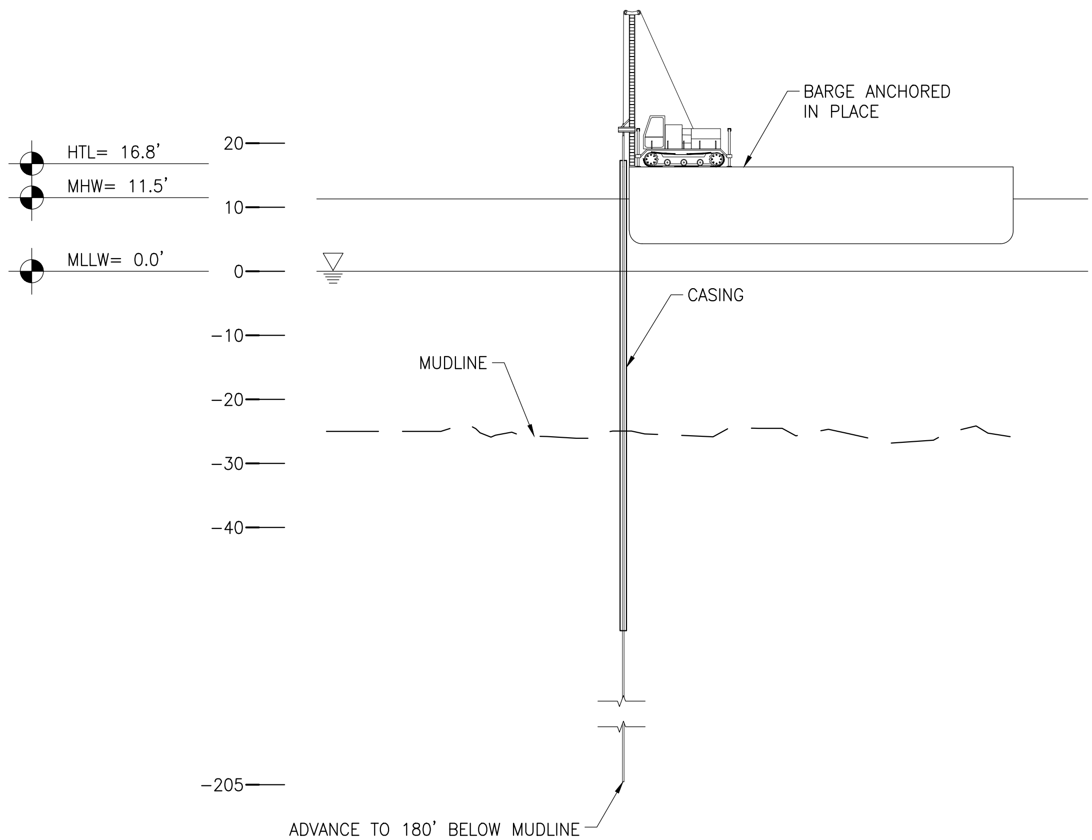
ADOT&PF
ENGINEERING SERVICES DIVISION
SOUTHCOAST REGION

PRINCE WILLIAM SOUND FERRY TERMINAL UPGRADES GEOTECH & SAMPLING FIELD INVESTIGATION

IN: ORCA INLET
BY: CORDOVA, AK

5/6/2025

SHEET **2** of **5**



BARGE BASED CPT/SPT DETAIL

PURPOSE:
TO COLLECT SOIL INFORMATION FOR FERRY TERMINAL UPGRADES

DATUM: MLLW = 0.0'

LAT: 60° 33' 22" N
LONG: 145° 45' 24" W
S: 21 T: 15 S R: 3W
COPPER RIVER MERIDIAN

BARGE BASED CPT/SPT DETAIL

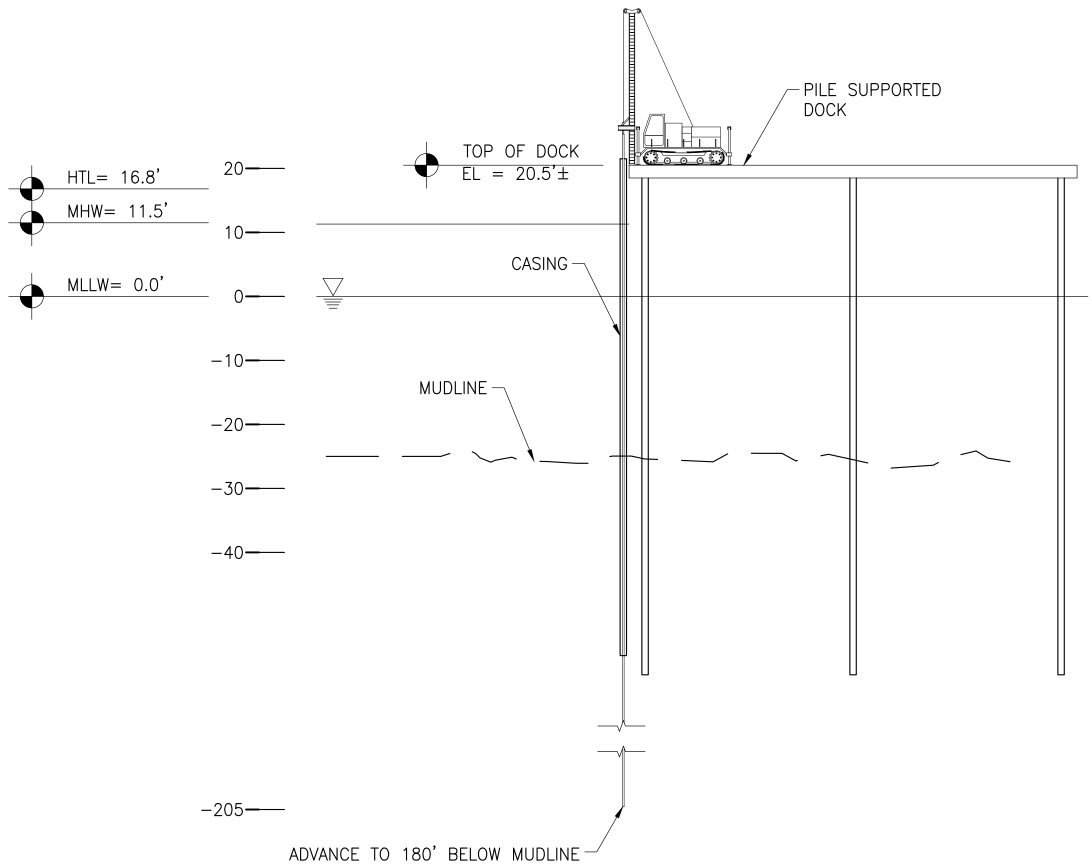
POA-XXXX-XXXX

ADOT&PF
ENGINEERING SERVICES DIVISION
SOUTHCOAST REGION

PRINCE WILLIAM SOUND FERRY TERMINAL UPGRADES GEOTECH & SAMPLING FIELD INVESTIGATION

IN: ORCA INLET
BY: CORDOVA, AK

5/6/2025



DOCK BASED
CPT/SPT BORING DETAIL

PURPOSE:
TO COLLECT SOIL INFORMATION FOR FERRY TERMINAL UPGRADES

DATUM: MLLW = 0.0'

LAT: 60° 33' 22" N
LONG: 145° 45' 24" W
S: 21 T: 15 S R: 3W
COPPER RIVER MERIDIAN

DOCK BASED
CPT/SPT DETAIL

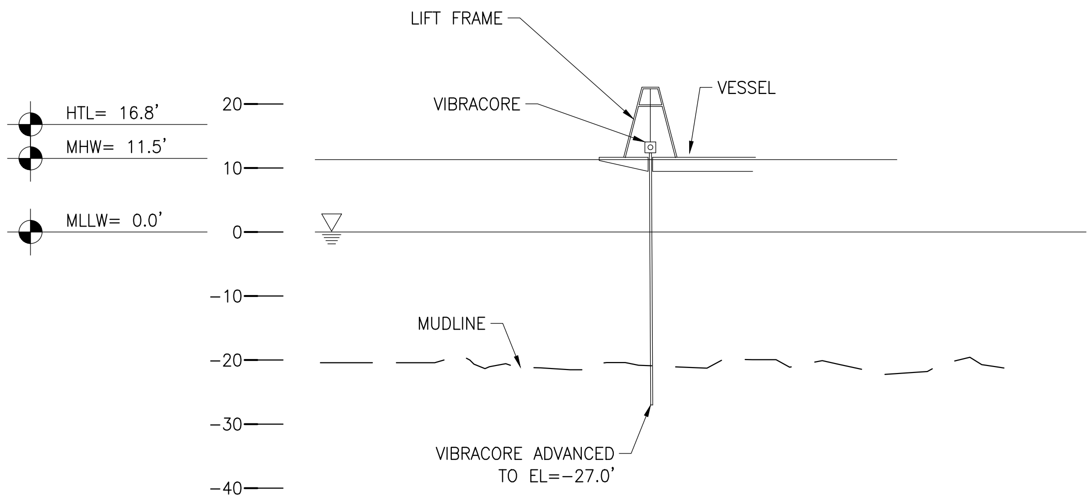
POA-XXXX-XXXX

ADOT&PF
ENGINEERING SERVICES DIVISION
SOUTHCOAST REGION

PRINCE WILLIAM SOUND FERRY TERMINAL UPGRADES GEOTECH & SAMPLING FIELD INVESTIGATION

IN: ORCA INLET
BY: CORDOVA, AK

5/6/2025



VIBRACORE SAMPLING DETAIL

PURPOSE: TO COLLECT SOIL INFORMATION FOR FERRY TERMINAL UPGRADES DATUM: MLLW = 0.0' LAT: 60° 33' 22" N LONG: 145° 45' 24" W S:21 T:15 S R:3W COPPER RIVER MERIDIAN	**VIBRACORE SAMPLING DETAIL** POA-XXXX-XXXX ADOT&PF ENGINEERING SERVICES DIVISION SOUTHCOAST REGION	**PRINCE WILLIAM SOUND FERRY TERMINAL UPGRADES GEOTECH & SAMPLING FIELD INVESTIGATION** IN: ORCA INLET BY: CORDOVA, AK 5/6/2025 SHEET **5** of **5**