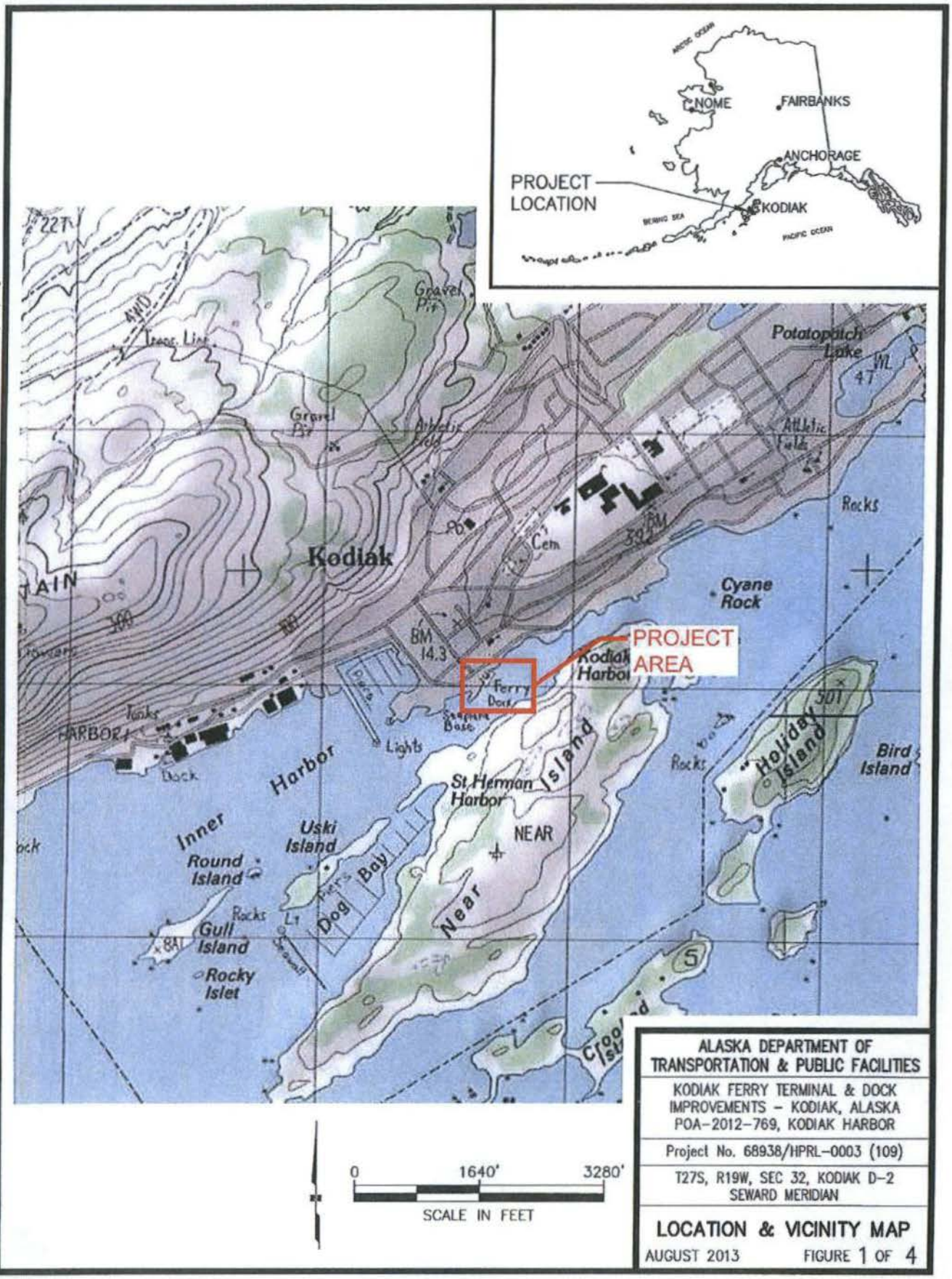

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

KODIAK FERRY TERMINAL & DOCK IMPROVEMENTS – KODIAK, ALASKA
POA-2012-769, KODIAK HARBOR

Project No. 68938/HPRL-0003 (109)

T27S, R19W, SEC 32, KODIAK D-2
SEWARD MERIDIAN

LOCATION & VICINITY MAP

AUGUST 2013 FIGURE 1 OF 4

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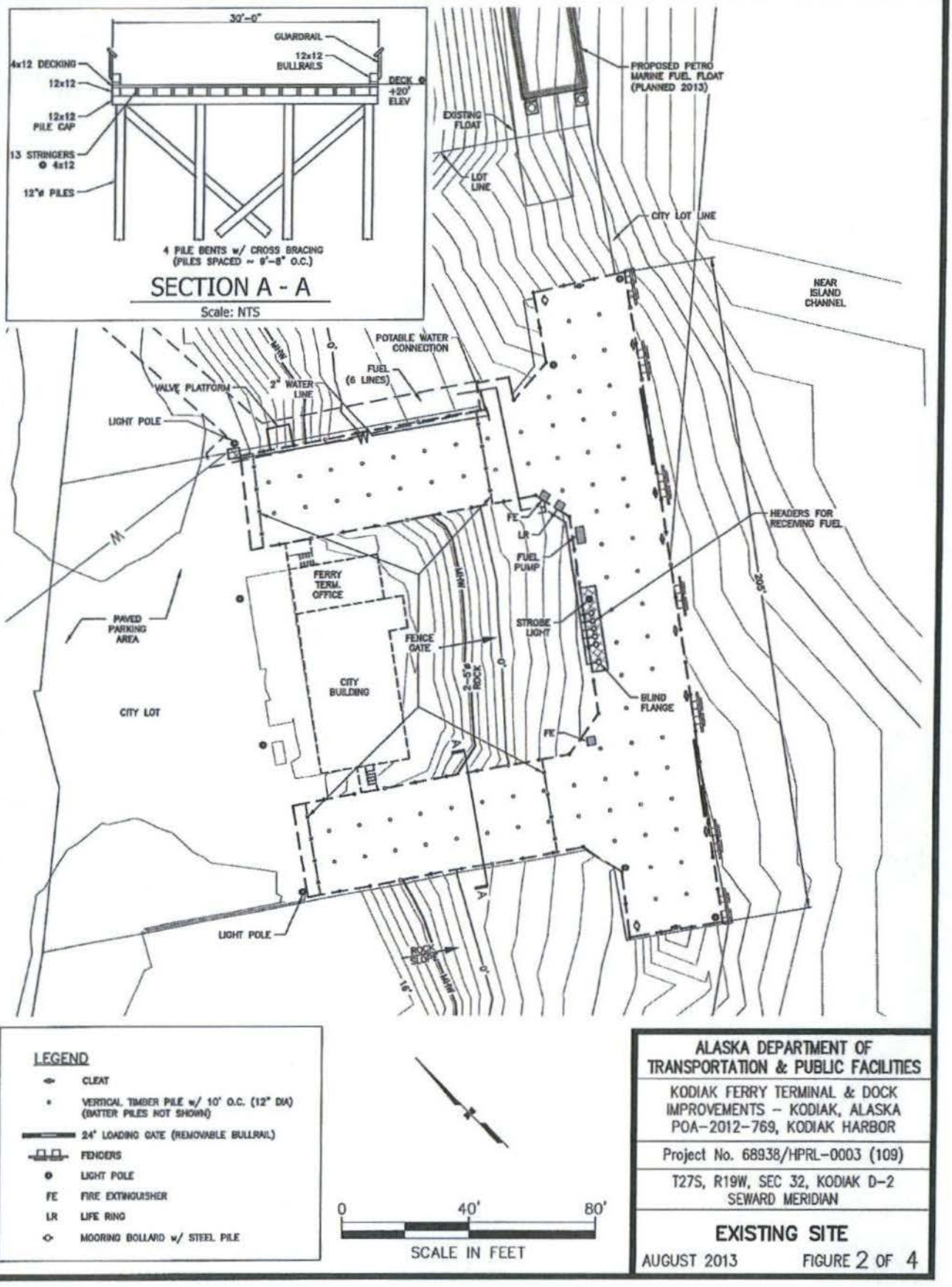

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

KODIAK FERRY TERMINAL & DOCK IMPROVEMENTS – KODIAK, ALASKA
POA-2012-769, KODIAK HARBOR

Project No. 68938/HPRL-0003 (109)

T27S, R19W, SEC 32, KODIAK D-2
SEWARD MERIDIAN

EXISTING SITE

AUGUST 2013 FIGURE 2 OF 4

Plotted: 8/23/2013 10:45 AM by Vernon Wreeland
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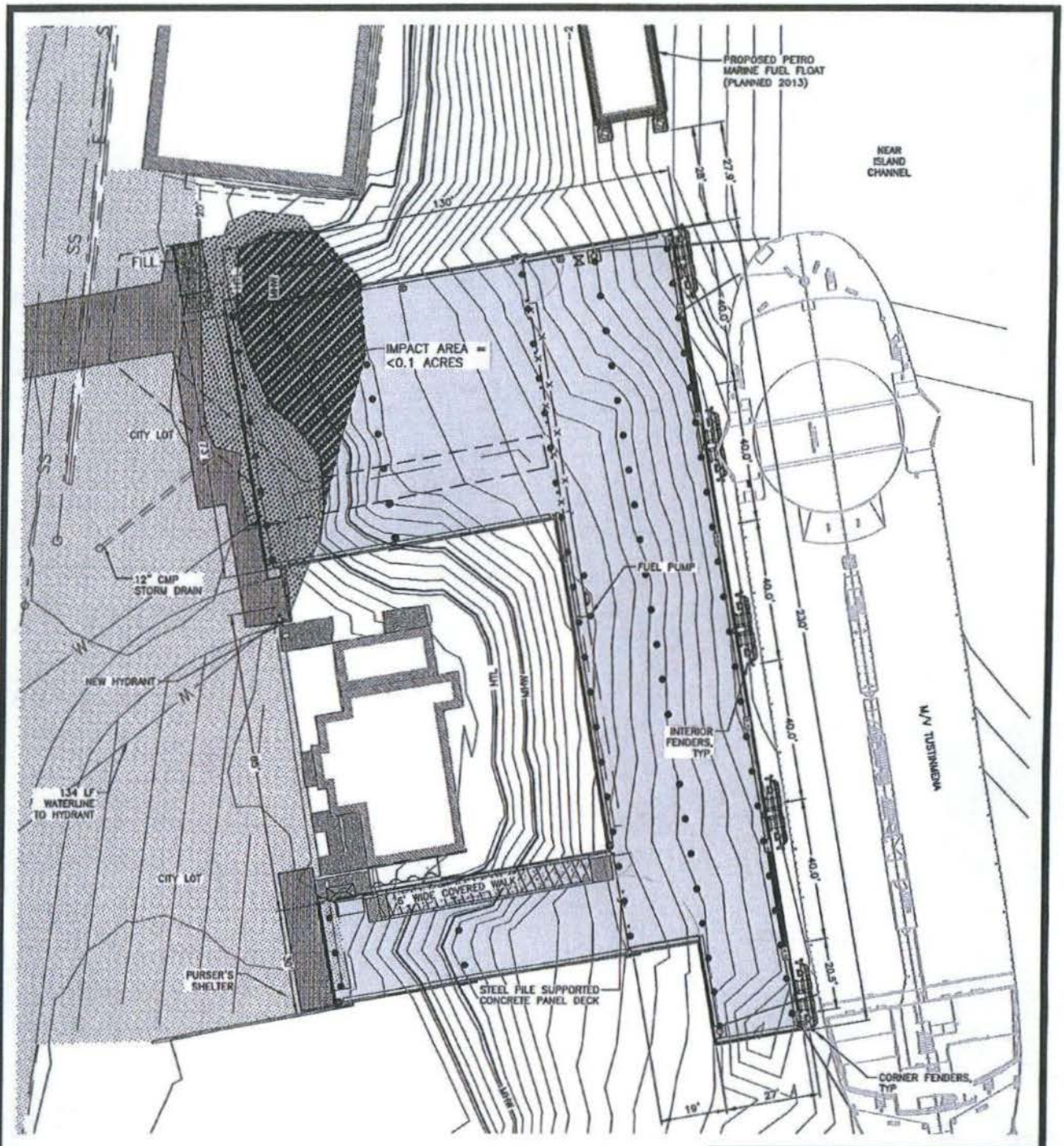


LEGEND

- NEW LIGHT POLE
- 24" MOORING BOLLARD/PILE
- MOORING CLEAT
- FIRE HYDRANT
- 18"ø FENDER PILE
- 24"ø STEEL PIPE PILE, VERTICAL
- IMPACT AREA
- FILL/ARMORING

0 40' 80'

GRAPHIC SCALE IN FEET

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

KODIAK FERRY TERMINAL & DOCK IMPROVEMENTS – KODIAK, ALASKA
POA-2012-769, KODIAK HARBOR

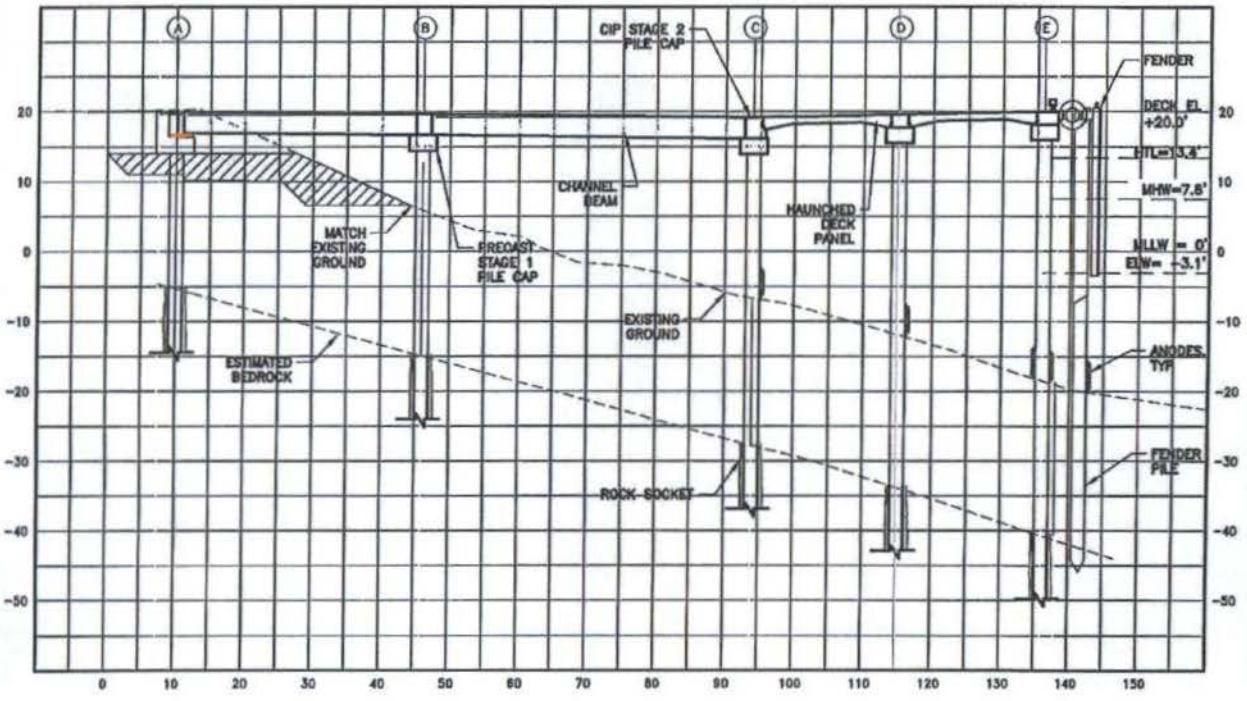
Project No. 68938/HPRL-0003 (109)

T27S, R19W, SEC 32, KODIAK D-2
SEWARD MERIDIAN

SITE PLAN

AUGUST 2013 FIGURE 3 OF 4

Plotted 8/26/2013 10:55 AM by Vernon Vreeland Z:\project\1848.01 DOT_SE Kodiak Ferry Terminal\Earth\Environmental\ACAD\USACE Permit\JP\1848.01 JP 4-Site Plan.dwg



FILL BELOW HTL/MHW

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
KODIAK FERRY TERMINAL & DOCK IMPROVEMENTS – KODIAK, ALASKA POA–2012–769, KODIAK HARBOR
Project No. 68938/HPRL–0003 (109)
T27S, R19W, SEC 32, KODIAK D–2 SEWARD MERIDIAN
DOCK ELEVATION
AUGUST 2013 FIGURE 4 OF 4

Plotted: 8/26/2013 10:57 AM by Vernon Wreeland Z:\project\1848.01 DOT_SE Kodiak Ferry Terminal\Earth\Environmental\ACAD\USACE Permit\IP\1848.01 IP 5-Dock Elevation.dwg

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249

In reply refer to: AFWFO

June 26, 2013

Emailed to:
Jill Taylor
Alaska Department of Transportation and Public Facilities
P.O. Box 112506
Juneau, Alaska 99811-2506

Re: Kodiak Ferry Terminal (*Consultation Number* 2012-0158)

Dear Ms. Taylor,

Thank you for your email of May 9, 2013, requesting concurrence with the determination that expansion of the Kodiak Ferry Terminal is not likely to adversely affect species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; ESA). Based on this email and follow-up emails received on May 30, and June 20, 2013, we understand that the Alaska Department of Transportation and Public Facilities (ADOT&PF) in cooperation with the Federal Highway Administration, is proposing to upgrade and expand the existing ferry terminal on Kodiak Island, Alaska. The U.S. Fish and Wildlife Service (Service) is providing this letter in accordance with section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended, ESA).

Project Description
The project site is an active ferry terminal and multi-use dock located in Kodiak Harbor. The existing 12,150-ft^2 timber dock would be replaced with a new, modern structure and associated mooring and fendering systems, upgraded fuel and water systems, and a new ferry terminal building. The new dock would have an 18,400-ft^2 footprint and would rest on steel piles in Near Island Channel. A 70-ft sheet pile abutment may replace existing support piles along the shore-side portion of the dock. The project is scheduled to begin in summer of 2014. Removal of existing piles and installation of new piles would occur over several months within one construction season, beginning after June 31, 2014.

ESA-Listed Species
The Alaska breeding population of Steller's eider (*Polysticta stelleri*, listed as threatened in 1997) and the southwest distinct population segment of northern sea otter (*Enhydra lutris kenyoni,* listed as threatened in 2005) may be found in the project area. Intertidal and marine habitat near the project area contains critical habitat designated for the sea otter in 2009. The Kittlitz's murrelet (*Brachyramphus brevirostris*) and yellow-billed loon (*Gavia adamsii*), which are candidates under the ESA, may also be found in the vicinity. Candidates receive no formal protection under the ESA, but have been included in this review to simplify the reinitiation process if they are listed prior to project completion.

Potential Effects to ESA-listed Species

This project may result in direct and indirect impacts to ESA-listed species and modification of critical habitat. Extremely loud noises resulting from pile driving may harm submerged animals near the noise source. Noise and construction activities may cause disturbance. The risk of direct and indirect exposure to harmful contaminants such as petroleum hydrocarbons and sediments may increase during construction (when heavy equipment is used). Additionally, Steller's eiders are known to collide with vessels and structures; lighting associated with docks may attract them, increasing the collision risk.

Risk Avoidance and Minimization Measures

To reduce or avoid the risk of harm to listed species and critical habitat, the ADOT&PF will incorporate the following measures into the action:

1. To reduce noise generated during pile driving, pile caps or cushions will be used.
2. To minimize risk of harm from noise, an observer will be present during in-water pile driving activities. If a Steller's eider or sea otter is within 300 meters during impact pile driving or 100 meters during vibratory pile driving, the work will stop until the eider(s) or otter(s) move off on their own, in accordance with the Service's protocols for pile driving, dredging, and placement of fill (draft version dated August 7, 2012).
3. To minimize habitat impacts:
   a) The proposed improvements would utilize the existing dock footprint as much as possible;
   b) The sheet pile abutment will be constructed above Mean High Tide (MHT).
4. Upgrades of existing fuel pipelines will reduce potential for fuel spills.
5. A spill prevention and response plan (SPRP) has been developed to minimize effects from oil and fuel spills and leaks. The plan includes measures such as:
   a) Spill response equipment is maintained onsite;
   b) Personnel regularly conduct visual inspections to detect spills or leaks as soon as they occur. Inspections occur year-round.
   c) Discharge prevention and response training is provided to on-site staff regularly;
   d) Fuel transfer activities are continuously monitored by operators;
   e) All fuel, lube, and oil storage drums and tanks are enclosed by a permanent lined impoundment or secondary container capable of retaining the volume of the largest storage container to contain any spills;
   f) The vessel fueling station incorporates overfill protection systems, including nozzles with automatic shutoffs, break away and isolation valves, and/or pressure relief valves.
6. A stormwater pollution prevention plan (SWPPP) will be prepared and implemented to minimize discharges of fuel, oil, and sediments during construction. This plan will include Best Management Practices (BMPs) such as:
   a) Fill for the shoreline abutment will be placed after the sheet piling is installed to minimize release of sediment into marine waters;
   b) Construction in intertidal waters will occur during low tide to the maximum extent practical;
   c) Storage of construction equipment and material stockpiles will be located as far away from water bodies as practical;
   d) Erosion control techniques such as sediment fences, straw wattles, diversion terracing, inlet protection, dust abatement, and stabilized construction entrances will be used as necessary;
   e) Fueling and maintenance of construction vehicles will be done off site or at designated areas only.

Effects of the Action

High noise levels produced by pile driving can cause physical harm such as hearing impairment. This project is unlikely to expose Steller's eiders or sea otters to harmful noise levels because observer protocols will be implemented to stop pile driving if eiders or otters are close enough to be harmed. The project is more likely to produce temporary visual or audible disturbances. In response to disturbance, animals may cease feeding, adopt vigilant behaviors, or disperse to other areas. The ferry dock is located in a busy channel with a high volume of marine traffic and noise. This suggests that animals occupying the channel are habituated to some level of noise and are not easily disturbed.

Approximately 0.2 acres of sea otter critical habitat will undergo changes due to disturbance of the seafloor and additional shading beneath the expanded dock. Changes are expected to be minor given the previously-disturbed condition of the area. If there are currently any kelp beds or benthic invertebrate food resources, these modifications may result in a small, localized reduction in habitat productivity.

Wildlife in the action area may be at risk of exposure to petroleum hydrocarbons, which can be toxic to birds and mammals, can weaken immune responses, and can contaminate food resources. The proposed action could increase risk of spills and leaks during construction by increasing the amount of vessel traffic and fuel used by heavy equipment. These risks will be minimized by implementation of a SPRP and SWPPP. After construction is complete, fuel system upgrades will reduce the risk of spills and leaks during normal dock operations. Vessel traffic is not expected to increase due to dock improvement. A long-term increase in hydrocarbon exposure is therefore considered unlikely.

This project may result in degradation of water quality due to release of sediments during placement of fill and discharge of sediment-laden stormwater from upland areas. Increases in sediment loads can affect sea otter and Steller's eider food resources by smothering benthic invertebrates. There is very little upland soil disturbance associate with this activity. The actions specified in a construction SWPPP will minimize sedimentation. Therefore, any water quality changes due to sedimentation are likely to be minor and temporary.

If the proposed action causes disturbance, changes in habitat, or reduced water quality, listed species are likely to respond by dispersing to other areas. During dispersal, animals may face increased exposure to predators or a reduction in food resources, body condition, or reproductive opportunities. The degree of impact depends on availability of nearby alternative suitable habitat. Steller's eiders and sea otters are found nearby in other areas of Chiniak Bay outside of the Near Island Channel (SWCA 2009). Assuming that presence indicates habitat suitability, we conclude these alternate areas contain suitable food and shelter for animals to avoid disturbance. We also assume all of the listed and candidate species are capable of traveling the necessary distances without expending large amounts of energy. Otters have been observed moving more than 3 km/day, and can travel up to 5.5 km per hour (Garshelis and Garshelis 1984). In a Steller's eider capture and banding study conducted in Unalaska Bay (Flint and Reed 2004), eiders regularly moved more than 3 km. Steller's eiders, Kittlitz's murrelets and yellow-billed loons migrate thousands of miles across seasons, suggesting that short distance flights are not problematic. There are no known barriers preventing the movement of these species in and around the action area. Therefore, we assume that displacement from the affected area will not significantly impact listed or candidate species.

The risk that a Steller's eider may collide with overhead structures on the dock cannot be eliminated, but collisions are rare. On the wintering grounds, the listed population of Alaska-breeding Steller's

eiders mixes with the non-listed Russian-breeding birds; listed Steller's eiders are estimated to account for only approximately 0.8% of the total Pacific wintering population. Therefore if a Steller's eider were to strike a structure, the probability that it were a listed eider is extremely low.

Conclusions:
Disturbance and habitat impacts from the proposed action are unlikely to result in harm to individuals because Steller's eiders, sea otters, Kittlitz's murrelets, and yellow-billed loons are capable of dispersing short distances to nearby areas of suitable habitat. No critical habitat will be lost and habitat modification will be localized and minor. Avoidance and minimization measures will reduce the risk of adverse effects to listed and candidate species. Therefore, the Service concurs with the ADOT&PF's determination that the Kodiak Ferry Terminal expansion is not likely to adversely affect Steller's eiders or sea otters. The Service also believes the proposed action will not impair the conservation value of the habitat or result in adverse modification of sea otter critical habitat.

Requirements of section 7 of the ESA have been satisfied. However, if new information reveals project impacts that may affect listed species or critical habitat in a manner or to an extent not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, or if a new species is listed or critical habitat is determined that may be affected by the proposed action, section 7 consultation must be reinitiated. This letter relates only to federally listed or candidate species and designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

Thank you for your cooperation in meeting our joint responsibilities under the ESA. If you have any questions, please contact me at (907) 271-1467 or Endangered Species Biologist Kimberly Klein at (907) 271-2066 and refer to consultation number 2012-0158.

Sincerely,

Ellen W. Lance
Endangered Species Branch Chief

cc: Roberta Budnik, USACE
David Lowell, ADOT&PF
Kevin Pendergast, R&M Consultants, Inc.

Literature Cited

Flint P, J Reed. 2004. Relationships between boat harbors, fish processing, contaminants, and wintering Steller's eiders and Harlequin Ducks in the Eastern Aleutian Islands. Unpub. Report. U.S. Geological Survey, Alaska.

Garshelis DL, JA Garshelis. 1984. Movements and Management of Sea Otters in Alaska. The Journal of Wildlife Management 48(3): 665-678.

[SWCA] SWCA Environmental Consultants. 2009. Terrestrial vegetation and wildlife, and marine mammals and seabirds technical report for Kodiak Airport environmental impact statement, Kodiak, Alaska. Prepared for Federal Aviation Administration and Alaska Department of Transportation and Public Facilities. Salt Lake City, Utah. 50 pp.+apps.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249

In reply refer to: AFWFO

July 18, 2013

Emailed to:
Jill Taylor
Alaska Department of Transportation and Public Facilities
P.O. Box 112506
Juneau, Alaska 99811-2506

Re: Kodiak Ferry Terminal (*Consultation Number* 2012-0158) Amendment 1

Dear Ms. Taylor,

We received a phone call today from Mr. Kevin Pendergast, of R&M Consultants, Inc. requesting clarification of the description of the proposed work to construct the Kodiak Ferry Terminal. The following description is included in our consultation, "The project is scheduled to begin in summer of 2014. Removal of existing piles and installation of new piles would occur over several months within one construction season, beginning after June 31, 2014." We would like to clarify that this statement is meant to indicate that work will begin *sometime* after June 31, 2014, not necessarily that work will be conducted and completed in 2014. While work could begin as soon as July 2014, the construction season also may not begin until July of 2015, or later, depending on final contracting and budgeting details. There is no date or time period in our consultation in or by which work must be conducted or completed. This amendment does not alter any other content, conclusions, or agreements stated in consultation number 2012-0158, which remains in full effect.

Thank you for the opportunity to clarify this uncertainty. Please call or email (907-223-2549, Kimberly_Klein@fws.gov) if you have any other questions or concerns.

Sincerely,

Kimberly Klein
Endangered Species Biologist

cc: Roberta Budnik, USACE
David Lowell, ADOT&PF
Kevin Pendergast, R&M Consultants, Inc.

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

July 29, 2013

Mr. Tim Haugh
Federal Highway Administration
Alaska Division, Environment Program Manager
P.O. Box 21648
709 West 9th Street, Room 851
Juneau, AK 99802-1648

Re: NMFS Concurrence Letter—Proposed DOT Kodiak Ferry Dock Reconstruction
PCTS# AKR-2013-9277

Dear Mr. Haugh;

The National Marine Fisheries Service (NMFS) has completed informal consultation under section 7(a)(2) of the Endangered Species Act of 1973 (ESA), regarding the Alaska Department of Transportation's (DOT) proposed reconstruction of the Alaska Marine Highway System's ferry dock in Kodiak, Alaska. DOT, in cooperation with the Federal Highway Administration (FHWA), is proposing to reconstruct the existing Kodiak Ferry Terminal and Dock (Pier 1) located in the community of Kodiak at 57°47'12.78"N, 152°24'09.73"W (Figure 1) for the purpose of improving the *M/V Tustamena's* mooring and cargo transfer operations.

NMFS received your request for written concurrence on May 9, 2013 (via email) and May 14, 2013 (hard copy) that the proposed action may affect, but is not likely to adversely affect species listed as threatened or endangered or critical habitat designated under the ESA. Based on our analysis of the information FHWA and DOT provided to us in May, June, and July, 2013, and additional literature cited below, NMFS concurs with your determination that this dock reconstruction project may affect, but is not likely to adversely affect the endangered humpback whale (*Megaptera novaengliae*), the endangered western Distinct Population Segment (DPS) of the Steller sea lion (*Eumetopias jubatus*) or its designated critical habitat.

CONSULTATION HISTORY

NMFS received your request for written concurrence via email on May 9, 2013 and hard copy on May 14, 2013. NMFS requested and was provided with a letter appointing DOT as the non-federal designee for this project via email on May 10, 2013. NMFS requested more information about the project via email on May 13, 2013, with additional email requests in May, June, and July. On July 12, 2013 DOT provided NMFS with additional information and justification for its "not likely to adversely affect" determination.

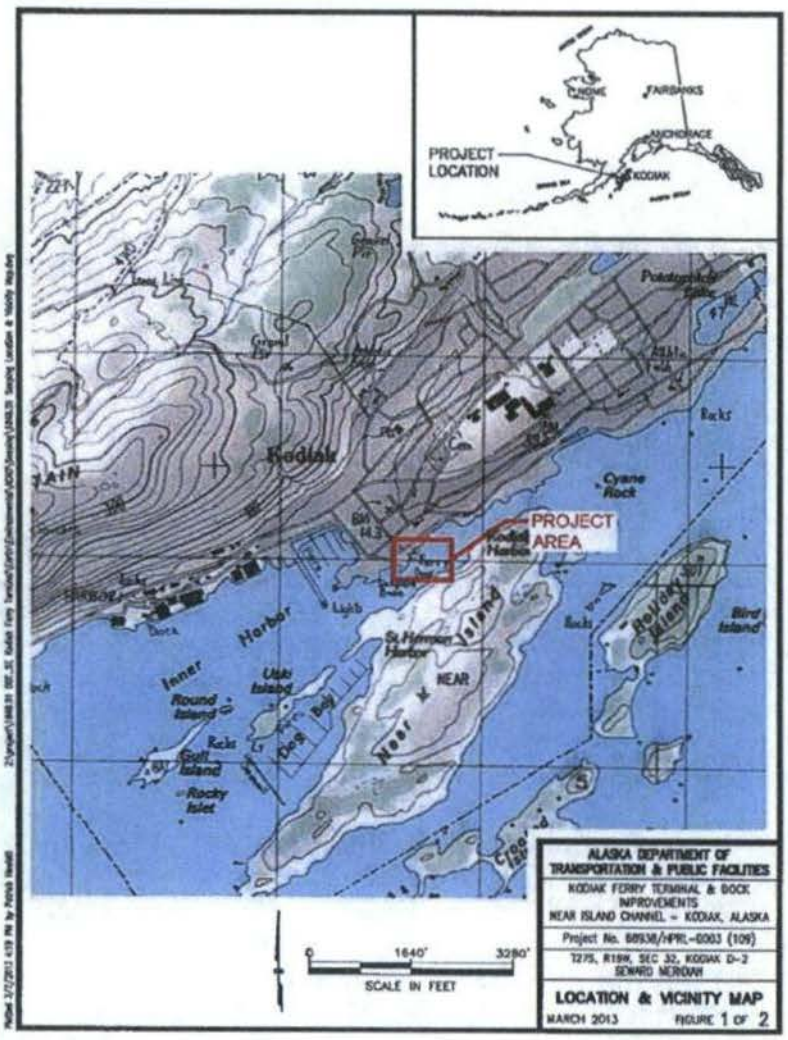

Figure 1. Location of the proposed project area.

DESCRIPTION OF THE PROPOSED ACTION AND ACTION AREA

Pier 1 is an active ferry terminal and multi-use dock located in Near Island Channel, which separates the community of Kodiak from Near Island (Figure 1). The existing 12,150ft^2 timber dock would be replaced with a new, modern structure. Associated mooring and fender systems would be replaced with new, modern systems. The action would increase the footprint of the dock to approximately 18,400ft^2, including the installation of a sheet pile retaining wall abutment with fill (0.1 acre above high tide line; 50-350 cubic yards of fill). The new dock would consist of approximately 114 round 24" diameter steel piles to support the main dock, and 14-16 round 16" diameter steel piles to support the dock fenders, a concrete deck, seven new fenders, and upgrades to the fuel and water systems.

The project site is underlain by a thin mantle (4-15 feet thick) of marine sediments overlying bedrock. All 24" pilings will be driven through the sediment layer using an impact or vibratory hammer, and inserted into holes drilled in the bedrock. Holes will be drilled by down-the-hole methods, which is analogous to a hydro-hammer for our analyses purposes. All 16" pilings will be driven into the marine sediment using either an impact or vibratory hammer, then set into bedrock with a few blows of an impact hammer. Removal of existing piles and installation of new piles would occur over a period of 4-6 months (not including breaks in the schedule when no work occurs). Pile driving, extraction, and drilling would occur intermittently over that time period. Pile driving through the sediment layer to the bedrock layer is expected to take up to several hours per piling. Drilling is expected to take up to several hours per piling.

Action Area

The Kodiak ferry dock is located on the northeastern corner of Kodiak Island, Alaska, near the town of Kodiak, within the Gulf of Alaska (Figure 1).

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 or at some future time. The action area, therefore, extends out to a point where no measurable effects from the project are expected to occur.

Since 1997 NMFS has used generic sound exposure thresholds to determine whether an activity produces underwater and in-air sounds that might result in impacts to marine mammals (70 FR 1871). The current in-water Level A (injury) threshold for impulse noise (e.g., impact pile driving) is 180 dB re 1 µPa for cetaceans (including the humpback whale) and 190 dB rel µPa for pinnipeds (including the Steller sea lion). The current Level B (behavioral disruption) threshold for impulse noise (e.g., impact pile driving) is 160 dB 1 µPa for cetaceans and pinnipeds. The current threshold for continuous noise is 120 dB re 1 µPa, which approximates high ambient noise conditions in the area around the Kodiak ferry dock. The action area for the proposed project includes the area where Steller sea lions and humpback whales may be subjected to underwater project-related sound levels greater than background levels (i.e., above 120 dB re 1 µPa received sound level).

Proposed Marine Mammal Mitigation Measures

Sound attenuation devices such as pile cushions or caps would be used between the impact hammer and the piling to reduce the noise. Pile cushions or caps have been found to reduce sound levels by 4 to 26 decibels (Laughlin, 2006). Additionally, marine mammal observers with shut-down authority will be present during all pile driving and extraction activities and will scan a 350-meter radius area around the project site (Figure 2), and will meet the following stipulations:

- be present during all pile driving/drilling and pile extraction operations,
- monitor for marine mammals at least 30 minutes prior to pile driving/drilling and extraction operations,
- be able to positively identify the endangered marine mammals in the area and have prior training or expertise in monitoring and surveying marine mammals (credentials available for review),

- maintain verbal contact with operations in order to immediately call for a halt in pile driving/drilling/extraction when a marine mammal is detected within the 350 meter observation area, and
- will provide NMFS with a report of all marine mammal sightings during the project.

Figure 2. Proposed marine mammal monitoring map. The 350-meter monitoring area is indicated within the circle by the shaded channel waters.

To minimize the use of pile driving, FHWA proposes to insert the 24" pilings into holes drilled in the bedrock using a down-the-hole hammer. Down-the-hole hammers (analogous to hydro-hammers) generate lower peak sound pressure levels than impact hammers.

LISTED SPECIES AND CRITICAL HABITAT POTENTIALLY AFFECTED BY THE ACTION
The endangered humpback whale and endangered western DPS of Steller sea lion (Table 1) may occur in the action area. Critical habitat has not been designated for the humpback whale, but the Kodiak ferry dock is within designated critical habitat for the Steller sea lion.

Table 1. Listing status and critical habitat designation for marine mammal species considered in this determination.

Species	Division	Status	Listing	Critical Habitat
Humpback Whale	*Megaptera novaeangliae*	Endangered	December, 2, 1970 35 FR 18319	Not designated
Western DPS Steller Sea Lion	*Eumetopias jubatus*	Endangered	May 5, 1997 62 FR 24345	August 27, 1993 58 FR 45269

Humpback Whale
Humpback whales are found in all ocean basins worldwide, and typically occur in tropical and subtropical waters during the winter and migrate seasonally to high latitudes during the summer (Allen and Angliss, 2012a). Humpback whales forage on *euphasiids* and small schooling fishes in the North Pacific (Clapham and Mead, 1999). In the North Pacific, humpback whales are currently found throughout their historic summer feeding range, including coastal and inland waters around the Pacific Rim from Point Conception, California, north to the Gulf of Alaska and the Bering Sea, west through the Aleutian Islands to the Kamchatka Peninsula and the Sea of Okhotsk (Allen and Angliss, 2012a).

Populations of humpback whales appear to be increasing worldwide and currently number at least 113,713, including 11,570 in the North Atlantic (data from 1992-93) (Stevick et al., 2003), 80 in the Arabian Sea (data from 2000-04) (Minton et al., 2011), 81,000 in the Southern Hemisphere (data from ~2007) (Andriolo et al., 2010; Barendse et al., 2011; Cerchio et al., 2009; Collins et al., 2010; Constantine et al., 2012; Felix et al., 2011; Findlay et al., 2011; Hedley et al., 2011; Noad et al., 2011), and the best current estimate for humpback whale abundance in the North Pacific is 21,063 animals (data from 2006-08), which exceeds some estimates of pre-whaling numbers (Barlow et al., 2011). Humpback whale populations were depleted in the twentieth century due to commercial exploitation, and numbers in the North Pacific following the cessation of whaling in 1966 have been estimated as low as 1,400 (Gambell, 1976) and 1,200 (Johnson and Wolman, 1984). Humpback whale abundance in the North Pacific has increased by at least an estimated 6.8% annually in the 39 years following the cessation of commercial whaling (Calambokidis et al., 2008).

The abundance estimate for the Gulf of Alaska and for Southeast Alaska/northern British Columbia is 3,000-5,000 animals (Calambokidis et al., 2008). Humpback whales are generally found in and around the nearshore areas of Kodiak Island. Groups of humpback whales are occasionally observed in the Narrow Cape and Ugak Island area, south of Kodiak, in spring, summer, and fall. Humpback whales are not expected to be present in the Near Island Channel because this water body between the main island of Kodiak and Near Island is very narrow and supports heavy boat traffic during summer. The two islands are connected by the Near Island Bridge.

As is the case for all large baleen whales, direct information about the hearing abilities of humpback whales is not available. Researchers studying *Mysticete* auditory apparatus morphology hypothesized that large *Mysticetes* have acute infrasonic hearing (Ketten, 1997). Humpback whales are categorized in the low frequency cetacean functional hearing group (Southall et al., 2007). This group has an estimated auditory bandwidth of 7 Hz to 22 kHz. Direct data on humpback whale hearing sensitivity is not available but has been estimated based on behavioral responses to sounds at various frequencies, favored vocalization frequencies, body size, ambient noise levels at favored frequencies, and cochlear morphometry.

Steller Sea Lion

Steller sea lions range throughout the North Pacific Ocean from Japan, east to Alaska, and south to central California (Loughlin et al., 1984). Steller sea lions, the largest of the eared seals (*Otariidae*), currently have a worldwide population estimated at 126,543-140,432 animals (Allen and Angliss, 2012b; Allen and Angliss, 2012c). Historically, Steller sea lion abundance was significantly greater with an estimated wordwide population of 245,000 to 290,000 animals in the late 1970s (1976-1980) (Loughlin et al., 1984).

There are two Steller sea lion DPSs in Alaska: the eastern DPS is listed as threatened under the ESA, and generally occurs east of Cape Suckling, Alaska (144°W); and the western DPS is listed as endangered, and generally occurs west of Cape Suckling, including Kodiak Island and the proposed action area. Steller sea lions are not known to migrate en masse, but individuals may widely disperse outside of the breeding season (late May to early July) (Allen and Angliss, 2012c).

The most recent comprehensive estimate (pups and non-pups) for the western DPS abundance in Alaska is 52,209 sea lions based on aerial surveys of non-pups conducted in June and July 2008-2011, and aerial and ground-based pup counts conducted in June and July 2009-2011 (Allen and Angliss, 2012c). The western DPS declined in abundance by about 70% between the late 1970s and 1990, with evidence that the decline had begun even earlier. Factors that may have contributed to this decline include 1) incidental take in fisheries, 2) legal and illegal shooting, 3) predation, 4) contaminants, 5) disease, and 6) climate change (NMFS, 2008). Although Steller sea lion abundance continues to decline in the Western Aleutians, non-pup counts conducted between 2000 and 2011 suggest stable or increasing Steller sea lion numbers in the area around Kodiak (Eastern Aleutians, and Western, Central, and Eastern Gulf of Alaska) (DeMaster, 2011).

At sea, Steller sea lions typically occur from shore to the 200 meter (656 ft) depth contour, but are also observed well beyond the continental shelf (Kajimura and Loughlin, 1988). Steller sea lions are opportunistic predators, feeding primarily on a wide variety of fishes and cephalopods, including Atka mackerel (*Pleurogrammus monopterygius*), walleye pollock (*Theragra chalcogramma*), Pacific herring (*Clupea pallasi*), capelin (*Mallotus villosus*), Pacific cod (*Gadus macrocephalus*), Pacific sandlance (*Ammodytes hexapterus*), and salmon (*Oncorhynchus* spp.) (Merrick et al., 1997; Pitcher, 1981).

The ability to detect sound and communicate underwater is important for a variety of Steller sea lion life functions, including reproduction and predator avoidance. Steller sea lions are

categorized in the pinniped functional hearing group which has an estimated auditory bandwidth of 75 Hz to 75 kHz in-water, and 75 Hz to 30 kHz on land (Southall et al., 2007). Studies of Steller sea lion auditory sensitivities have found that this species detects sounds underwater between 1 to 25 kHz (Kastelein et al., 2005), and in the air between 0.25 to 30 kHz (Mulsow and Reichmuth, 2010).

Critical Habitat

On August 27, 1993 (58 FR 45269) critical habitat was designated for Steller sea lions, which in Alaska includes 1) a 20-nautical mile (23 mi) buffer around all major haulouts and rookeries, 2) associated terrestrial, air, and aquatic zones, and 3) three large offshore foraging areas. The essential features that were used to determine Steller sea lion critical habitat were the physical and biological features that support reproduction, foraging, rest, and refuge. Essential habitat for the Steller sea lion includes terrestrial, air, and aquatic areas. Adequate food resources are an essential feature of the Steller sea lion's aquatic habitat (58 FR 45269).

Sea lion haulouts and rookery sites are numerous throughout the breeding range, and there are two haulouts (Long Island and Cape Chiniak) and one rookery (Marmot Island) located in the Kodiak Island area (Table 2 and Figure 3).

Table 2. Summer sea lion counts for 2008-2010 (DeMaster, 2011).

	Adults and Juveniles (non-pups)			
Site Name	**2008**	**2009**	**2010**	**Rookery**
Marmot Island	644	749	576	Yes
Long Island	59	39	0	No
Cape Chiniak	130	117	110	No

The proposed project area occurs within the 20-nautical mile (23 mi) radius of Long Island and Cape Chiniak, which is designated as critical habitat for Steller sea lions. The major haulouts at Long Island and Cape Chiniak are located approximately 4 nautical miles (4.6 mi), and 12 nautical miles (13 mi), respectively, east of the proposed project site. The closest rookery is on the southeast corner of Marmot Island, which is approximately 30 nautical miles (34 mi) from the project area. The critical habitat surrounding the rookery at Marmot Island does not overlap with the proposed project area.

Steller sea lions haul out on a man-made float in St. Herman's Harbor 1300 meters (0.8 mi) west of the proposed project area, with approximately 50 animals observed hauled out on it (see Figure 4). It is believed that Steller sea lions use this haulout to access fish carcass discards from commercial fishing vessels and processors, and this is not a federally recognized haulout used to define critical habitat.

EFFECTS OF THE ACTION

For purposes of the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that 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 discountable, insignificant, or completely

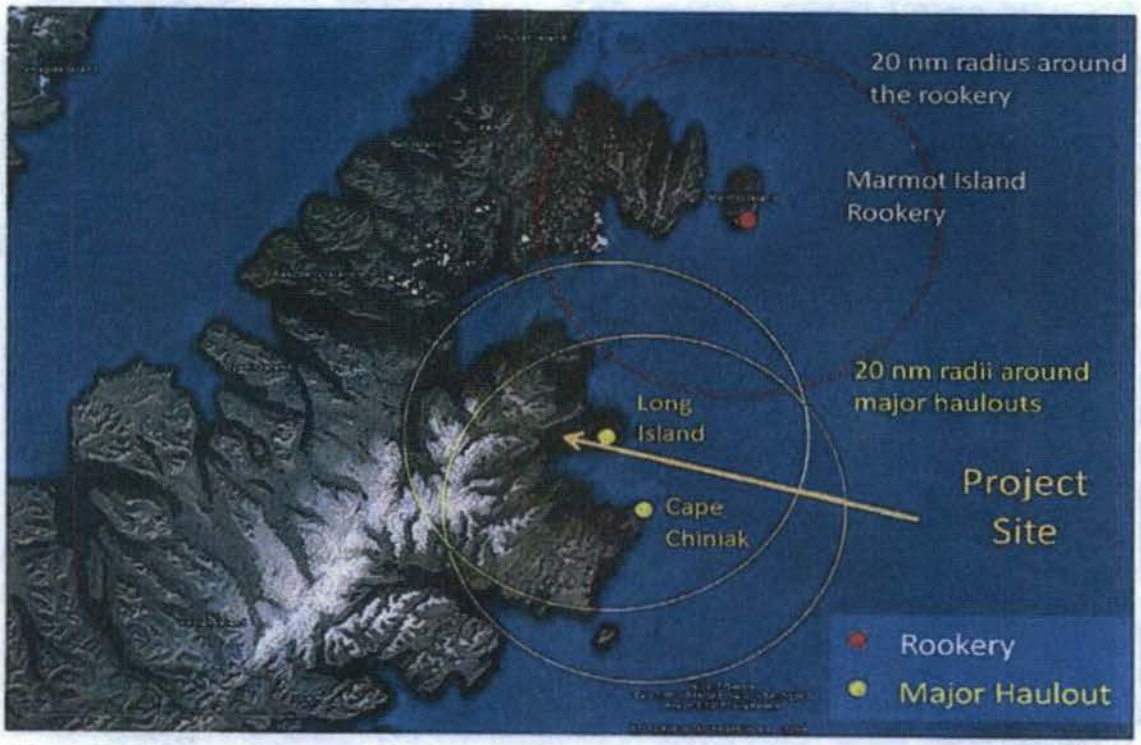

Figure 3. Steller sea lion rookeries and major haulouts in the project area near Kodiak. A 20-nautical mile (23 mi) critical habitat zone is shown around the rookeries and major haulouts.

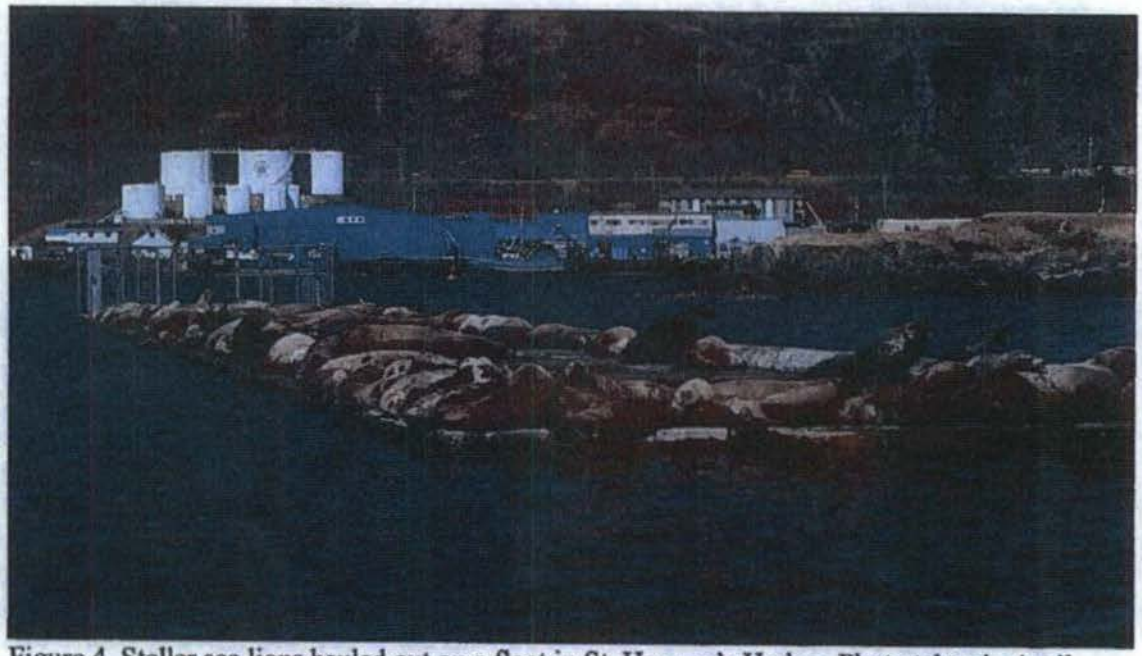

Figure 4. Steller sea lions hauled out on a float in St. Herman's Harbor. Photo taken in April 2011 by the U.S. Army Corps of Engineers.

beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

The effects of the proposed action that are reasonably certain to occur are noise and habitat alteration. NMFS also analyzed the potential cumulative effects within the action area. This proposed project is not expected to lead to any increases in ferry or other marine vessel traffic in the region; therefore, ship strikes are not a stressor evaluated in this consultation.

Noise

Possible impacts to marine mammals exposed to loud underwater or in-air noise include mortality (directly from the noise, or indirectly from a reaction to the noise), injury, and disturbance ranging from severe (e.g., abandonment of vital habitat) to mild (e.g., startle response). Noise is the primary concern for both species covered in this consultation. Pile driving, drilling, and extraction will introduce noise into the underwater environment that has the potential to negatively impact marine mammals (Thompson et al., 2013). See the "Action Area" section above for a description of NMFS sound exposure thresholds.

Hydro-hammer (i.e., drilling) methods generate pulses with a maximum sound source level of 165 decibels (re 1 µPa) at 200 hertz (URS, 2011). Based on a project similar to the proposed action, the 160 decibel isopleth (Level B harassment for pulsed noise sources) for the hydro-hammer is estimated to be 3 meters, whereas the 120 decibel isopleth (Level B harassment for continuous noise sources) is estimated to be 250 meters from the source (URS, 2011).

Vibratory pile driving generates lower peak pressure levels than impact pile driving, but the total energy imparted to the pile is comparable because the vibratory hammer operates continuously, and requires more time to install the pile (ICF, 2009). Vibratory hammer methods used at the Port of Anchorage project under similar conditions as the proposed action generated peak pulses of 179 decibels (re 1 µPa) (URS, 2007). The 160 decibel isopleth at the Port of Anchorage project was determined to be 33 meters, while the 120 decibel isopleth was estimated to be 600-800 meters (URS, 2007).

Impact pile driving is expected to be the loudest sound source in the proposed action. Impact pile driving methods can generate peak pulsed sound pressure levels of 237 decibels (re 1 µPa) (Hildebrand, 2009). The 160 decibel isopleth for the pile driving associated with the Port of Anchorage project (assumed to be a similar conditions as the proposed action) was determined to be 350 meters from the source (URS, 2007). In order to prevent Level B acoustic exposure to Steller sea lions and humpback whales from this pulsed noise source, in-water work will need to halt if either species enters a zone within 350 meters of the sound source.

The significance of potential impacts of noise to marine mammals is dependent on a number of factors including the magnitude of sound pressure levels, species receiving the sound, exposure type (e.g., continuous vs. pulse), duration, site characteristics, species' auditory characteristics, and individual marine mammal characteristics (e.g., habituation, season, motivation) (Dazey et al., 2012; Ellison et al., 2012).

In addition to the mitigation measures described in the "Proposed Marine Mammal Mitigation Measures" section above, NMFS expects that several factors will minimize the potential impacts of the pile driving and drilling noise associated with this project:

- The soft sediment marine seafloor and shallow waters in which the work is proposed. Sound dissipates more rapidly in shallow waters over soft seafloors.
- Land forms blocking the noise. St. Herman's Harbor is blocked from the sound source by land projections and islands. Near Island and mainland Kodiak prevent the sound from travelling underwater North, South, and Southeast, restricting the noise to the Near Island Channel.
- Baseline sound level in the Kodiak harbor/port area is relatively high. Two boat harbors occur in Near Island Channel housing a number of commercial and recreational marine vessels. The channel is also the main conduit for local vessel traffic, and for accessing the outside Gulf of Alaska waters. The channel is frequently traversed by ferries, barges, tug boats, commercial vessels and tenders, recreational vessels, and charter fishing operations. This type of heavy use is known to elevate the background levels of noise in the marine environment. In 2001 an acoustical study associated with the Port of Anchorage project in Cook Inlet measured sound levels of 149 decibels from a tug pushing a barge. Similar activities and sounds levels are expected to occur in the port of Kodiak, which will mask the sounds of pile driving, extraction, and drilling. Marine mammals transiting this area are routinely exposed to sounds louder than 120 decibels, and continue to use this area; therefore, there does not appear to be evidence that they are harassed by these sounds, or they have become habituated to the noise.

Effects of Noise on Humpback Whales

The noise created by this proposed project is expected to be within the auditory range of humpback whales. However, humpback whales are very uncommon in the Near Island Channel and are not likely to be within hearing distance of the project while it is occurring. In the unlikely event that a humpback whale did access the action area of this project while pile driving, extraction, or drilling was underway, the 350-meter marine mammal observation shut-down area is large enough to prevent injury to the whale (decibel levels outside of the 350-meter shut-down area are expected to be below the NMFS exposure threshold for non-continuous noise sources). Whales could be exposed to non-injurious (Level B) continuous levels of noise (above 120 decibels) outside of the 350-meter shut-down area. However, elevated chronic sound levels associated with harbor activities would likely mask additional sound sources at those same or lesser values. In addition, the elevated chronic sound levels from existing harbor activities have likely already resulted in the habituation to such noise among any whales occurring near the port of Kodiak (Ellison et al., 2012). Thus, we do not expect any measureable negative responses from humpback whales that might occur in the action area. Effects from noise associated with the proposed action are therefore insignificant.

Effects of Noise on Steller Sea Lions

The noise created by this proposed project is expected to be within the auditory range of Steller sea lions. Due to the relatively close proximity to the haulout in St. Herman's Harbor, Steller sea lions are expected to access the action area periodically or frequently. However, the 350-meter marine mammal observation shut-down area is large enough to prevent injury to Steller sea lions from the proposed action (decibel levels outside of the 350-meter shut-down area are expected to

be below the NMFS exposure threshold for non-continuous noise sources). In addition, land forms such as the isthmus and islands around St. Herman's Harbor will block some of the noise from the haulout area (e.g., inside the harbor). Steller sea lions could be exposed to non-injurious (Level B) continuous levels of noise outside of the 350-meter shut-down area, but because they have likely become habituated to the human activities and elevated sound levels already occurring in the vicinity of the port of Kodiak, the animals are not expected to respond to the noise associated with the proposed project (Ellison et al., 2012) in any measureable way. We therefore conclude that such effects are insignificant.

Habitat Alteration

The proposed project includes fill of 0.1 acre (volume = 50-350 cubic yards) below high tide line.

Effects of Habitat Alteration on Humpback Whales

There are no expected detectable effects of the proposed fill on humpback whales and their habitat. Humpback whales do not use the shallow waters where the fill will be deposited, and indirect effects to prey or due to sediment in the water are expected to be undetectable to humpback whales; therefore, such potential effects are insignificant.

Effects of Habitat Alteration on Steller Sea Lions

There are no expected detectable effects of the proposed fill on Steller sea lions and their habitat. Steller sea lions do not use the shallow waters where the fill will be deposited. Indirect effects to prey or due to sediment in the water would be insignificant and discountable due to recolonization and the temporary nature of the activity, and are expected to be undetectable to Steller sea lions.

Cumulative Effects

DOT identified a previously permitted private project (Petro Marine fuel, scheduled to be replaced in October 2013), and indicated that the Kodiak Waterfront Master Plan (July 29, 2010) identifies the need for upgrades of various piers and harbors. However, the projects identified in the Kodiak Waterfront Master Plan are not reasonably certain to occur at this point. The Petro Marine fuel project and other minor repair work in the vicinity are relatively temporary in nature and collectively add to the ongoing noise at the Kodiak port.

To date, the chronic noise of the Kodiak port apparently has not prevented Steller sea lions from using this area, as indicated by the frequent use of the St. Herman's Harbor float. Significant increases in the baseline activity and noise levels are not predicted within the action area in the foreseeable future.

NMFS DETERMINATIONS

Species Determinations

Humpback whale

Due to the short duration of the proposed action, the proposed mitigation measures, relatively high levels of baseline activity and noise (e.g., leading to masking and habituation), and low probability of humpback whales occurring in the action area, NMFS concludes that humpback whales are not likely to be exposed to the stressors associated with the proposed project. Further,

even if exposure were to occur, any responses by humpback whales are unlikely to constitute "take" or reduce the fitness of individual whales that could be exposed.

Steller sea lion

Due to the short duration of the project, the proposed mitigation measures, relatively high levels of baseline activity and noise (i.e., habituation of the Steller sea lions in the area), and the limited geographic scope of the noise, NMFS concludes that Steller sea lions are not likely to negatively respond upon being exposed to noise from the proposed project, and any responses by Steller sea lions are unlikely to constitute "take" or reduce the fitness of individual Steller sea lions that could be exposed.

Critical Habitat Determination

The proposed fill and pile driving would occur in Steller sea lion critical habitat, so an analysis of the impacts of the proposed action on the essential features used to define critical habitat is necessary. The essential feature of Steller sea lion critical habitat pertinent to this consultation is adequate food resources in Steller sea lion aquatic habitat. It is expected that most fish are able to move away from the proposed activity to avoid harm, and will still be available to Steller sea lions. Although the proposed action is likely to produce stressors that affect critical habitat, and critical habitat will be exposed to those stressors, the quantity, quality, and availability of the essential feature (i.e., adequate food resources) is not likely to be reduced (due to the small area affected, mobility of fish, anticipated recolonization, and the temporary nature of the stressor). Therefore, NMFS determines that the proposed action may affect, but is not likely to adversely affect Steller sea lion critical habitat.

CONCLUSION

Based on this analysis, NMFS concurs with your determination that the proposed action may affect, but is not likely to adversely affect, humpback whales or the western DPS of Steller sea lions and their designated critical habitat.

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 questions regarding this letter to Sadie Wright at Sadie.Wright@noaa.gov or (907) 586-7630.

Sincerely,

James W. Balsiger, Ph.D.
Administrator, Alaska Region

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Kevin Pendergast

From: Taylor, Jill A (DOT) <jill.taylor@alaska.gov>
Sent: Wednesday, May 22, 2013 3:46 PM
To: Kevin Pendergast
Cc: Lowell, David H (DOT)
Subject: FW: Kodiak Ferry Terminal EFH Determination

FYI

From: Matthew Eagleton - NOAA Federal [mailto:matthew.eagleton@noaa.gov]
Sent: Tuesday, May 14, 2013 11:23 AM
To: Taylor, Jill A (DOT)
Subject: Kodiak Ferry Terminal EFH Determination

Jill,

Good talking with you this morning.

NMFS has determined the project, as proposed, will not adversely affect EFH. NMFS offers no EFH Conservation Recommendations, thus no further EFH consultation is needed.

Matt