United States Coast Guard
U.S. Department of Homeland Security

Draft Environmental Assessment for Homeporting Fast Response Cutters and Offshore Patrol Cutters at United States Coast Guard Base Kodiak

Version 1

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UNITED STATES COAST GUARD
DRAFT ENVIRONMENTAL ASSESSMENT FOR
HOMEPORTING FAST RESPONSE CUTTERS AND OFFSHORE PATROL CUTTERS
AT UNITED STATES COAST GUARD BASE KODIAK

This Coast Guard draft environmental assessment (DEA) was prepared in accordance with Environmental Planning Policy, COMDTINST 5090.1 (series) and is in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. §§ 4321 to 437h) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 C.F.R. Parts 1500-1508).

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

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20 February 2024

I reviewed the EA and submitted my written comments to the Proponent.

Environmental Reviewer and Senior Environmental Professional:

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20 February 2024

In reaching my decision/recommendation on the Coast Guard's proposed action, I considered the information contained in this EA and considered and acknowledge the written comments submitted to me from the Environmental Reviewer(s).

Proponent:

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20 February 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

°C	degree(s) Celsius
°F	degree(s) Fahrenheit
µg/m^3	microgram(s) per cubic meter
A.S.	Associate of Science
AAC	Alaska Administrative Code
ACS	American Community Survey
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
amp	ampere(s)
AoR	area of responsibility
APDES	Alaska Pollutant Discharge Elimination System
APE	area of potential effects
ASCE	American Society of Civil Engineers
B.A.	Bachelor of Arts
B.S.	Bachelor of Science
Base Kodiak	U.S. Coast Guard Base Kodiak
BMP	best management practice
CAA	Clean Air Act
CATV	cable TV/satellite
CDC	Child Development Center
CDP	Census Designated Place
CFR	Code of Federal Regulations
cm	centimeter(s)
COMDTINST	Commandant Instruction
CWA	Clean Water Act
DHS	Department of Homeland Security
District 17	U.S. Coast Guard Seventeenth District
DMG	Design and Maintenance Guideline
DPS	distinct population segment
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EMP	Environmental Management Plan
EO	Executive Order
EPA	U.S. Environmental Protection Agency

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

ESA	Endangered Species Act
FMP	Fishery Management Plan
FRC	Fast Response Cutter
ft	foot (feet)
ft^2	square foot (feet)
GOA	Gulf of Alaska
gpd	gallon(s) per day
gpm	gallon(s) per minute
HTL	high tide line
in	inch(es)
ISC	Integrated Support Command
KEA	Kodiak Electric Association
km	kilometer(s)
kts	knot(s)
LAN	Local Area Network
m	meter(s)
M.S.	Master of Science
M-AEST	Master of Agriculture Education Services and Technology
MBTA	Migratory Bird Treaty Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MEng	Master of Engineering
mg/m^3	milligram(s) per cubic meter
MHHW	mean higher high water
MHW	mean high water
mi	mile(s)
mi^2	square mile(s)
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
mph	mile(s) per hour
MSGP	multi-sector general permit
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
nm	nautical mile(s)

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOB	Naval Operating Base
NPFMC	North Pacific Fishery Management Council
NPS	National Park Service
NRHP	National Register of Historic Places
NSC	National Security Cutter
OPC	Offshore Patrol Cutter
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PCE	Primary Constituent Element
Ph.D.	Doctor of Philosophy
PM_{10}	particulate matter 10 microns or less
$PM_{2.5}$	particulate matter 2.5 microns or less
PMP®	Project Management Professional
ppb	part(s) per billion
ppm	part(s) per million
PSO	Protected Species Observer
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Office
SPCC	Spill Prevention Control and Countermeasure
SWPPP	stormwater pollution prevention plan
U.S. Army	U.S. Department of the Army
U.S. Navy	U.S. Department of the Navy
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USCG	U.S. Coast Guard
USCGC	U.S. Coast Guard cutter
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance
VOC	volatile organic compound
WHEC	U.S. Coast Guard High Endurance Cutter
WWII	World War II
yd^3	cubic yard(s)

1. INTRODUCTION

The U.S. Coast Guard (USCG) proposes to implement in-water improvements necessary at U.S. Coast Guard Base Kodiak (Base Kodiak), Kodiak, AK, to support the commission and homeport of two Fast Response Cutters (FRCs) and two Offshore Patrol Cutters (OPCs). In addition, USCG proposes providing berthing and supporting infrastructure to Base Kodiak for temporary homeporting of and long-term major maintenance of an additional FRC, which is proposed to be homeported in Seward, AK. The Seward-homeported FRC would be temporarily homeported in Kodiak until infrastructure being constructed in Seward is complete and able to support long-term homeporting of the vessel. Temporary homeporting in Kodiak is proposed for a period of up to five years.

This Environmental Assessment (EA) has been prepared to determine the potential for any significant environmental effects from implementation of the Proposed Action and any alternatives to the Proposed Action as well as whether an Environmental Impact Statement is required or if a Finding of No Significant Impact is appropriate. The EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.], 4321, *et seq.*); the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations [CFR] 1500–1508); the Department of Homeland Security (DHS) Management Directive 023-01; and USCG's implementing procedures for NEPA Commandant Instruction (COMDTINST) 5090.1 (series).

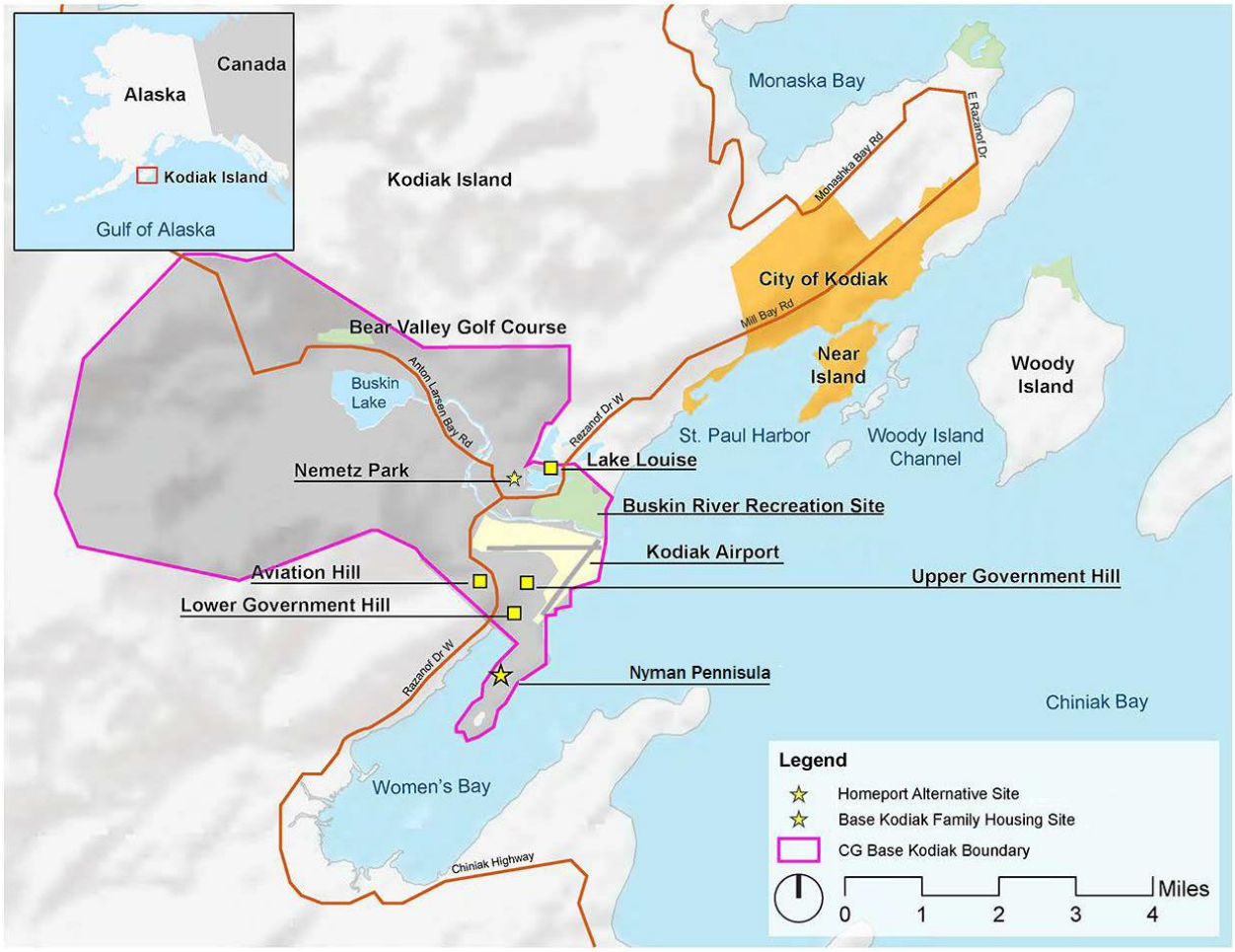
1.1 LOCATION AND SITE DESCRIPTION

The U.S. Coast Guard Seventeenth District (District 17) has an area of responsibility (AoR) that includes waters as far south as the Dixon Entrance at the Canada-United States border, west throughout the Aleutian Islands, and north into the Arctic Ocean. Base Kodiak, located on the northeastern coast of Kodiak Island, off the southern coast of Alaska (Figure 1), currently provides mooring for several USCG assets and has shoreside infrastructure to support District 17 and USCG's mission requirements in the AoR. The mission of Base Kodiak is to support law enforcement, search and rescue, homeland security, and homeland defense operations for its AoR.

Base Kodiak is USCG's largest operating base, occupying approximately 27,000 acres (ac; 42.2 square miles [mi^2]). It is home to Air Station Kodiak, the North Pacific Regional Training Center, Electronics Systems Unit Kodiak, Aids to Navigation Team Kodiak, and Marine Safety Detachment Kodiak. It is also homeport to three United States Coast Guard Cutters (USCGCs): USCGC Alex Haley, USCGC Douglas Munro, and USCGC Cypress. Base Kodiak also provides pier space to several transient vessels each year, including USCG vessels assigned to District 17 operating in the Gulf of Alaska (GOA), Bering Sea, and Arctic Ocean.

Base Kodiak is a Historic District and is listed on the National Register of Historic Places (NRHP). It supports more than 1,000 USCG personnel and civilians stationed in Kodiak, the Aleutian Island Chain, and northwestern Alaska, providing administrative, logistical, and family support to all operational units on Kodiak Island and to visiting cutters from the Pacific Area. Base Kodiak is the only USCG base that supports cutters as well as aircraft and is the only location in the Alaska operating area where cutters can receive JP-5 aviation fuel.

Figure 1. Regional Location Map



Base Kodiak has three moorages located on the Nyman Peninsula in Womens Bay. These include two functional piers (the cargo wharf and the fuel pier) and one condemned pier (the marginal wharf).

The cargo wharf is the primary location for all long-term mooring at Base Kodiak. The northern end of the cargo wharf was constructed in 1967, the southern end was constructed in 1986, and the wharf was rehabilitated in 1990. The cargo wharf is 1,087 feet (ft; 331 meters [m]) long and 26 to 59 ft (7.9 to 18 m) wide and has a 48-ft (14.6-m) catwalk extending to a mooring dolphin. The water depth ranges from 28 to 30 ft (8.5 to 9.1 m) along the wharf. The wharf structure consists of steel H-piles (1967) and round piles (1986), concrete pile caps, and deck panels. The steel H-piles are equipped with a cathodic protection system, and the framing as well as the decking are composed of reinforced concrete.

The fuel pier supports Base Kodiak's fueling operations, mooring fuel barges, and vessels taking on fuel. The fuel pier was constructed in 1942 with corrective actions in 1965 (after the 1964 earthquake), 1988, and 2008 (metal grating decking and new transformer). The fuel pier is 610 ft

(186 m) long with an additional 150-ft (45.7-m) catwalk leading to a mooring dolphin. It has wooden piles and a cross-braced deck.

The fuel pier is currently not a viable location for long-term mooring due to lateral and vertical load restrictions and because it primarily supports fueling operations. It is a Restricted Area where routine access or permanent mooring is prohibited, in accordance with USCG policy. The width of the bridge-way connecting the pier to the shore is also a limiting factor. The fuel pier is used for temporary, transient mooring of homeported and transient vessels during refueling services. USCG has recently been granted funding for a new project to completely replace the existing fuel pier and fuel piping infrastructure.

The marginal wharf is a former U.S. Department of the Navy (U.S. Navy) wharf that was constructed in 1942. The marginal wharf is 1,680 ft (512 m) long and 30 to 70 ft (9.1 to 21.3 m) wide and consists of timber cross piles and wooden decking. The marginal wharf was condemned after the 1964 earthquake when several tsunami waves uplifted the support pilings. It is considered unsafe and condemned with no landside access. The wharf is in a state of severe deterioration and is planned for demolition.

1.2 PROJECT BACKGROUND

The FRCs are 154-ft (46.9-m) patrol boats that hold up to 24 crew members. They can be deployed independently to conduct missions such as coastal security, fishery patrols, search and rescue, and national defense. The FRCs have an enhanced response time with a top speed of 32.2 miles per hour (mph; 28 knots [kts]), the ability to conduct missions on moderate seas up to transit speed for 8 hours in all directions, and the ability to survive on very rough seas up to loiter speed for 8 hours in all directions. Each FRC holds, and can launch and recover, a short-range, rigid-hulled inflatable boat.

The OPCs are planned to be approximately 360 ft (109.7 m) long and 54 ft (16.5 m) wide, holding up to 104 crew members. (USCG awarded a contract for design and build of the OPCs; however, USCG has not yet determined the final design specifications.) The OPC would conduct primary missions in USCG deep water environment, generally defined at 12 nautical miles (nm; 22.2 kilometers [km]) to 1,200 nm (2,222.4 km) from shore, for USCG-mandated missions of ports, waterways, and coastal security; search and rescue; drug interdiction; alien migrant interdiction operations; living marine resources; other law enforcement; and defense readiness. OPCs are planned to be capable of sustaining a speed of 25.3 mph (22 kts) and a range of 9,500 nm (17,594 km) at 16.1 mph (14 kts). The OPC provides a capability bridge between the 418-ft (127.4 m) National Security Cutter (NSC), which is capable of patrolling the open ocean in the most demanding maritime environments, and the FRC, which serves closer to shore. The OPC would replace USCG's existing 270-ft (82.3-m) and 210-ft (64-m) WMECs, which are becoming increasingly expensive to maintain and operate.

Under USCG's "hybrid maintenance model," Base Kodiak is the preferred location to provide full major maintenance facilities and temporary homeporting and berthing for one additional FRC to be ultimately homeported in Seward, AK.

1.3 PURPOSE AND NEED

1.3.1 Purpose of the Proposed Action

The purpose of the Proposed Action is to commission and homeport two FRCs and two OPCs in the District 17 AoR and to provide adequate shoreside and mooring facilities. The shoreside facilities and mooring infrastructure would be capable of supporting an additional FRC (proposed to be homeported in Seward, AK after temporary homeporting at Base Kodiak) during periods of major maintenance.

1.3.2 Need for the Proposed Action

The Proposed Action is needed to replace USCG vessels that have reached the end of their service life and to meet increasing mission demands in the District 17 AoR and, in particular, the North Pacific Ocean, GOA, Bering Sea, and Arctic Ocean. The FRCs and OPCs would enhance (and ultimately replace) the mission support provided by the USCGCs Alex Haley and Douglas Munro. The Proposed Action also includes the need to provide temporary homeporting of and additional long-term berthing and supporting infrastructure for major maintenance of an additional FRC that is proposed to be homeported in Seward, AK. In addition, the Proposed Action would also provide berthing space to accommodate mooring of a visiting NSC when an OPC is not in port.

1.4 REGULATORY FRAMEWORK

NEPA requires federal agencies to consider environmental consequences in their decision-making process. Council on Environmental Quality regulations for implementing NEPA mandate that all federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. In addition, USCG's implementation of NEPA is guided by COMDTINST 5090.1 (series). These federal regulations establish both the administrative process and the substantive scope of the environmental impact evaluation, which is designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. In addition to NEPA, the Council on Environmental Quality NEPA regulations, and DHS and USCG NEPA policy, this EA considers all applicable laws, regulations, and Executive Orders (EOs), including the following:

- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Endangered Species Act (ESA)
- Migratory Bird Treaty Act (MBTA)
- Magnuson-Stevens Fishery Conservation and Management Act (MSA)
- Marine Mammal Protection Act (MMPA)
- National Historic Preservation Act (NHPA)
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response, Compensation, and Liability Act
- Toxic Substances Control Act
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks

Applicable State of Alaska statutes are also considered as part of this EA.

1.5 PUBLIC AND AGENCY INVOLVEMENT

This Draft EA will be made available to all interested federal, state, and local agencies as well as the general public for review and comment, in compliance with policies regarding open decision making. USCG will publish a Notice of Availability of the Draft EA in the Legal Notices sections of the *Anchorage Daily News* and the *Kodiak Daily Mirror*. Additionally, the Draft EA will be made available for review at the Kodiak Public Library and at the Anchorage Public Library Loussac Branch. A list of agencies and other stakeholders consulted during the preparation of this EA is presented in Section 4. Consultation activities pursuant to specific regulatory requirements are summarized in the appropriate resource sub-sections of Section 3.

1.6 DOCUMENT ORGANIZATION

Section 2 provides a description of the Proposed Action and alternatives. The existing resource conditions and potential impacts are described in Section 3. The existing conditions described in the Affected Environment sections constitute the baseline for analyzing the potential effects of the Proposed Action and alternatives. Section 3.15 provides a comparative analysis of the impacts of the Proposed Action and alternatives. Section 3.16 summarizes the environmental significance of the Proposed Action and alternatives. Section 4 contains a list of agencies and persons contacted during preparation of this EA. Section 5 presents a list of preparers of this EA. Section 6 contains the references cited in this EA.

2. PROPOSED ACTION AND ALTERNATIVES

2.1 ALTERNATIVE SELECTION PROCESS

Planning factors are the key project parameters used by USCG to develop a list of potential viable alternatives for homeporting the FRCs and OPCs. Alternatives may be eliminated from further consideration if they do not meet one or more of the planning factors. The best alternatives should meet all planning factors.

USCG developed the following planning factors during the OPC and FRC Homeport Feasibility Study. The following factors constitute the baseline criteria that the project must address to support the mission of homeporting the cutters successfully:

- USCG-owned or -leased areas shall be explored for viable homeport alternatives to meet arrival dates. If an existing Government-owned homeport facility is viable, commercially leased property is not required.

- Impacts to existing homeported occupants shall be minimized. USCGCs Alex Haley and Douglas Munro shall be decommissioned or relocated in advance of OPC arrival. USCGC Cypress shall remain homeported at Base Kodiak at the cargo wharf, and its operations shall be accommodated in the homeporting plan.

- Facility and project execution issues (e.g., existing waterfront condition and dredging) required to meet minimum threshold requirements shall be resolved to meet arrival dates.
- Capital costs shall be minimized and only address required upgrades to meet minimum requirements.
- Use of existing adequate logistics and support amenities (e.g., housing, personnel support) shall be maximized.
- FRCs: Water Patrol Boat 110s shall be decommissioned and replaced by FRCs.
- FRCs: Existing wharves, if available, shall be able to fully accommodate the FRC's minimum requirements. Due to tidal range and potential weather/wave action concerns, floats are required for FRC moorings.
- Long-term USCG presence would require the use of the homeport facilities for a period consistent with the 20-year economic life of the assets.
- All berthing plans shall be flexible and maximize the ability to accommodate homeporting changes.
- OPCs: 210-ft (64 m) and 270-ft (82.3-m) long U.S. Coast Guard Medium Endurance Cutters (WMECs) require homeports through at least 2024 and be subsequently decommissioned and replaced by OPCs.
- OPCs: the new pier and new dock for OPCs shall be able to fully accommodate the OPCs with all necessary hotel services.
- OPCs: The tidal range shall be evaluated at each viable homeport candidate location to determine if it necessitates that docks or floats be used to accommodate the OPCs.

The following stakeholder criteria were also established by USCG as guidance for the future homeporting decision-making process (criteria are listed in order of importance):

1. Operations Requirements:

    a. Deliver capabilities that enhance operational mission effectiveness.
    b. Ability to maintain operational readiness during construction.
    c. Align individual projects with current regional strategic plans.
    d. Ability to meet USCG Anti-Terrorism/Force Protection setback requirements.
    e. Ability to meet Life Safety Standards.
    f. Abreast berthing or nesting is not desirable for FRCs.
    g. Abreast berthing or nesting of OPCs is permissible; however, it is not ideal or preferred for OPCs.

2. Shore Infrastructure Capacity:

    a. Accessibility of vessels to shore support facilities, including dock utility connections.

b. Availability of adequate waterfront infrastructure to support vessels.
c. Wind and wave action loadings on the berths will be minimized.
d. Ability to adequately berth like vessels in close proximity to one another.
e. Optimum spatial and functional configuration of shore support facilities and waterfront infrastructure.
f. Ability to meet adjacency requirements between shore support facilities.
g. Renovation, Reuse, New Construction, and Leasing are considered viable options for FRC locations.

3. Economics:

    a. Ability to begin construction when necessary to accommodate vessel arrival date.
    b. Reduce USCG's shore footprint through consolidation of units/facilities.
    c. Co-locate facilities with other DHS components.
    d. Divest or phase out high-cost, maintenance-intensive facilities through centralization of operational and shore assets.

4. Environmental Impacts:

    a. Ability to successfully avoid or mitigate any potentially significant impacts to the environment.

In addition to the above stakeholder criteria, waterside requirements are a consideration during the planning process. The waterside requirements for the OPC and the FRC are as follows:

1. OPC Waterside Requirements:

    a. Water depth at mooring (mean lower low water [MLLW]): 23 ft (7 m).

    b. Mooring length: 460 ft (140.2 m; representing 360 ft [109.7 m] plus a 50-ft (15.2-m) clearance at each end of the OPCs).

    c. Channel depth (MLLW): 27 ft (8.2 m).

    d. Pier utilities, including electrical (2,000 amperes [amp]), potable water (6,300 gallons per day [gpd]), and sewage (150 gallons per minute [gpm] per berth).

    e. Pier services, including cable TV/satellite (CATV), telephone, Local Area Network (LAN), and refuse removal.

2. FRC Waterside Requirements:

    a. Water depth at mooring (MLLW): 14 ft (4.3 m).

    b. Mooring length: 194 ft (59.1 m; representing 154 ft [46.9 m] plus a 20-ft [6.1-m] clearance at each end of the FRCs).

    c. Channel depth (MLLW): 17 ft (5.2 m).

d. Pier utilities, including electrical (236 amp per berth), potable water (1,100 gpd), and sewage (1,500 gpd per berth at 150 gpm).

e. Pier services including CATV, telephone, LAN, and refuse removal.

Miscellaneous needs include hazardous material or flammable storage, brow and brow stand, oily water disposal, fueling, fire protection water, crane service, and access to a small boat removal capability.

Finally, the homeport decision must consider the Commandant of the USCG's recommendation as to the location the FRCs and OPCs at Base Kodiak (USCG 2013).

2.2 PROPOSED ACTION AND ALTERNATIVES

Based on the planning factors listed above, Base Kodiak was identified as the only location in the District 17 AoR that could reasonably meet the criteria for successful and cost-effective homeporting of two FRCs and two OPCs and meet the expected mission requirement needs described in Section 1.3.2, in addition to providing temporary homeporting and long-term maintenance support for a third FRC proposed to be homeported in Seward, AK. The existing Base Kodiak cargo wharf layout is shown in Figure 2.

Figure 2. Existing Base Kodiak Cargo Wharf Layout

Homeporting configurations at Base Kodiak were developed based on USCG planning factors and stakeholder criteria. Three alternatives were further evaluated, one of which was dismissed from subsequent evaluation. The alternative that was considered viable is described below and evaluated in the remainder of this EA.

The action alternative (Proposed Action) includes in-water and waterfront improvements to support the commission and homeporting of two FRCs and two OPCs as well as to provide temporary homeporting of and long-term berthing and maintenance support for a third FRC proposed to be homeported in Seward, AK. Soil improvements would also be made in an area

under and west of the Berth 2 wharf replacement and within a new replacement approach bulkhead to reduce or eliminate liquefaction and slope instability during seismic events.

Under the Proposed Action, two FRCs and one OPC would arrive in Kodiak in 2025, the second OPC would arrive in 2026, and the third FRC would arrive in 2026. No changes to the fueling systems and operations would occur under the Proposed Action, and fueling operations would continue to comply with federal and state regulations and USCG instructions regulating marine fueling. The homeporting of the two FRCs and two OPCs, along with the temporary homeporting and long-term maintenance support of the third FRC, would result in 366 new personnel stationed at Base Kodiak, 106 personnel more than that which was associated with the Alex Haley and Douglas Munro.

The No Action alternative, which does not meet the project purpose and need, is described in Section 2.2.2 and was considered in this EA, as required by NEPA.

USCG will not commence construction of the Selected Action until final engineering design is completed and until written approval for coverage under the Construction General Permit and all other associated permitting is received.

2.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

Under the Proposed Action, the existing Cargo Wharf would be extended by 150 ft. (45.7 m) The southern end of Berth 3 would be extended by 100 ft (30.5 m; adding 4,000 square feet [ft^2; 0.09 ac). In addition, Berth 2 would be demolished and replaced with a 360-ft (109.7-m) long cargo wharf, and the southern access trestle would be demolished and replaced with an 80-ft by 135-ft (24.4-m by 41.1-m; 10,650 ft^2 [0.24 ac]) solid fill approach bulkhead. Berth 2 and Berth 3 would be designed to permanently homeport an OPC. Additionally, Berth 3 would be able to accommodate a visiting NSC when an OPC is not in port. The approximately 14-ft (4.3-m) maximum daily tidal range at the site would require the installation of floats for mooring of the FRCs to eliminate the need to continually monitor and adjust mooring lines. As a result, two new foam-filled precast concrete and/or cast-in-place concrete floats would be installed: the South Float, approximately 200-ft (60.9-m) long by 25-ft (7.6-m) wide with a freeboard of 32 inches (in; 81.3 centimeters [cm]), shall support berthing on the south floating dock (Berth 5A), and the north float, also approximately 200-ft (61-m) long by 25-ft (7.6-m) wide, shall support berthing on one face (Berth 4).

Soil improvements would also be made in an estimated 145-ft (44.2-m) by 55-ft (16.8-m) area under Berth 2 wharf replacement, in an approximate 84-ft (25.6-m) by 30-ft (9.1-m) area east of the southern approach bulkhead, and in a 28 ft (8.5 m) by 122 ft (37.2 m) area on the shoreside of the bulkhead to reduce or eliminate liquefaction and slope instability during seismic events.

Project design documents are provided in Appendix A. The replacement Berth 2 pile-supported wharf and Berth 3 would be designed for a 75-year design life. The concrete floating docks would be designed for a 50-year design life, and the repair of the existing dock would result in a 20-year extension of its life. All demolition and construction will follow applicable codes and standards (Facilities Design & Construction Center, Seattle Detachment 2021).

Implementation of the Proposed Action would take place over 2 years from January 2025 to December 2026. A temporary pedestrian access to Berth 3 would provide access during construction of the new Berth 2 Wharf. The temporary deck would be in place for a minimum of 24 months and would be a 45-ft (13.7-m) by 250-ft (76.2-m), pile-supported grated deck. Berth 1 and Berth 3 would remain active throughout the Proposed Action.

Materials for the wharf would be delivered throughout both years of construction using routine commercial barges (i.e. not project-specific), 400 box trucks, 50 lowboy trailers for heavy equipment, 20 air freight flights, approximately 150 truck trailer deliveries, 2,000 small truck deliveries, and 200 small boat deliveries.

2.2.1.1 Demolition and Construction

Demolition activities would include demolishing the south access trestle and dolphin-related structures; demolishing Building N7 on the Cargo Wharf; removing approximately 18,530 ft^2 of reinforced concrete and asphalt; removing up to 363 wooden and steel piles, either by cutting them off at the mudline or removing them completely; and removing all existing electrical, plumbing, telecom, cable television, heat trace, sewage, and other existing utilities on the Cargo Wharf. The stated quantity of piles to be removed from each structure as presented in the following sections may increase based on conditions at the time of demolition. The estimated total quantity of 363 piles to be removed is a conservative estimate. Construction activities would include the replacement of Berth 2, construction of the new electrical substation, and the replacement of the south access trestle with a solid-fill approach bulkhead. All demolition and construction will be conducted following the best management practices (BMPs) described in Section 2.3 of this EA and additional mitigation measures, stipulations and BMPs included in final permits and approvals. Construction is anticipated to take place either in conjunction with the demolition, or immediately after the completion of the demolition. Demolition is anticipated to occur between January and March 2025, whereas construction is anticipated to begin in April 2025 and could continue through the end of 2026. This schedule may shift as necessary to obtain approvals and authorizations.

Demolition would be completed using land and water-based equipment, including barges, small boats, dozers, backhoes, ladders, cranes, concrete/asphalt saws, small tools, and hauling trucks. A temporary staging area would be used to house demolition materials prior to placing them into dump trucks for transportation to an approved disposal facility. Removed timber and creosote-treated piles will be handled and disposed of following best practices and per agency requirements.

Approximately 292 new piles would be installed by vibratory hammer until refusal is encountered (approximately 20 minutes per pile). Final installation would be completed by impact hammer, with a maximum of 2,400 blows per pile. Rock drilling would likely be needed to socket piles into rock substrates for additional axial and lateral support of foundation elements. Details of removal and installation of piles, camel logs, fenders, approach bulkhead walls, sheet pile anchor walls, small craft floats, and floating dock are discussed below for the specified project areas. Additionally, approximately 138 temporary guide piles would be installed for accurate alignment of permanent piles and subsequently removed once permanent piles are installed.

2.2.1.2 Berth 2 Area

The approximately 30-ft to 60-ft (9.1-m to 18.3-m) by 360-ft (109.7-m) Berth 2 wharf replacement would be constructed using reinforced concrete, precast deck panels, and transition plates that are appropriate for heavy lifting activities. Construction of the wharf would involve the use of cranes, lifts, and concrete mixers stationed on the shoreline and on barges. Wharf utilities and auxiliary facilities would be constructed and serviced by the electrical substation and electrical distribution building.

A total of 108 bearing piles, 28 brace piles, 70 fender piles, and 360 linear ft (109.7 m) of camel log would be removed at Berth 2. New construction at Berth 2 would involve the installation of 60 new 42-in (106.7-cm) bearing piles, 35 new 24-square-inch (154.8-square-centimeter) precast fender piles, and eight 8-ft (2.4-m) by 3-ft (0.91 m) diameter floating foam fenders.

2.2.1.3 Berth 3 Area

2.2.1.3.1 Berth 3 Fender Piles

A total of 74 14-in (35.6) timber fender piles—some with rub rails attached to them—would be removed from the shoreside area of Berth 3. Approximately 475 linear ft (144.8 m) of 24-in (61-m) camel log would be removed along with one 24-in (61-cm) steel southwest corner fender pile (filled with gravel and concrete). Additionally, three 24-in (61-cm) steel corner fender piles (filled with gravel and concrete) would be removed from southeastern-most area.

2.2.1.3.2 South Wharf Extension at Berth 3

Installation of 20 new 24-in (61-cm) fender piles, 100 linear ft (30.5 m) of 24-in (61-cm) camel log, and 24 new 42-in (106.7-cm) steel bearing piles would be performed at the south wharf extension area. Additionally, three 30-in (76.2-cm) steel corner protection piles would be installed.

2.2.1.4 North Floating Dock (Berth 4)

At the north floating dock, ten 30-in (76.2-cm) steel guide piles and one 200-ft (61-m) by 25-ft (7.6-m) floating dock would be installed.

2.2.1.5 South Floating Dock (Berth 5A)

For the south floating dock, construction would entail installing 8 new 36-in (91.4-cm) steel piles and one 200-ft (61-m) by 25-ft (7.6-m) floating dock.

2.2.1.6 Camel Log Floating Berth (Berth 6)

Ten 30-in (76.2-cm) steel guide piles and two 24-in (61-cm), 140-linear ft (42.7-m) floating camel logs would be installed at Berth 6.

2.2.1.7 Approach Bulkhead

To replace the existing south access trestle, a total of 28 bearing piles would be removed along with associated anodes and steel cross bracing. New construction at the replacement approach bulkhead would include installation of 100 new 42-in (106.7-cm) diameter steel pipe piles to construct a 10,650 ft^2 (0.24 ac; 80-ft [24.4 m] wide by 135 ft [41.1 m] long) pipe-pile-walled

bulkhead. Approximately 2,950 cubic yards (yd^3; 2,255.4 cubic meters) of type C fill would then be placed within bulkhead walls piles.

The bulkhead would be stabilized to increase the relative density of the soils placed within the bulkhead and improve the area's strength and resistance to liquefaction and provide a degree of reinforcement and a potentially effective means of drainage. Vibroflotation and replacement, a type of vibrocompaction commonly used within offshore fills, would be used. An approximately 30-in (76.2-cm) diameter torpedo-shaped vibrating probe (a "vibroflot") would be vibrated vertically into the fill placed within the bulkhead. The resulting hole would then be back filled with gravel as the vibroflot is removed to create stone columns within the bulkhead. This process would be repeated within a grid to place 360 stone columns, approximately 30 in (0.76 m) apart.

Once the stone columns are placed, the bulkhead will be covered with concrete, Table 1 describes the specific quantities and types of fill to be placed above high tide line (HTL), in the intertidal zone between HTL and mean high water (MHW), and below MHW.

Table 1. Project Fill Summary

	Approach Bulkhead		Stabilization Improvements	
	Area (ft^2)	**Volume (yd^3)**	**Area (ft^2)**	**Volume (yd^3)**
Fill above HTL				
Concrete	4,350	220	735	
Type C Fill		250		
Porous Rock (Stone Columns) via Vibroflot and Replacement		4,200		3,675
Total		**4,670**		**3,675**
Fill in Intertidal Waters (Between MHW and HTL)				
Concrete	1,650	200	140	
Type C Fill		500		
Porous Rock (Stone Columns) via Vibroflot and Replacement		1,525		700
Total		**2,225**		**700**
Fill in Marine Waters (below MHW)				
Concrete	4,650	600	2,240	
Type C Fill		2,200		
Porous Rock (Stone Columns) via Vibroflot and Replacement		3,275		11,200
Total		**6,075**		**11,200**
Grand Total	**10,650**	**12,970**	**3,115**	**15,575**

ft^2 – square feet
yd^3 – cubic yard(s)
HTL – high tide line
MHW – mean high water

A new 875-ft^2 (0.02-ac) electrical substation and utility building would be constructed on the replacement approach bulkhead. New shore tie hotel services would be provided at Berths 2, 3, 4, and 5A for water, electrical, and sewer connections.

2.2.1.8 Refurbished Small Craft Float

Existing small craft floats (150 linear feet or 45.7 m) on the nearshore side of Berth 2 will be relocated to the north end of Berth 1. Removal of twenty-two 24-in (61-cm) timber guide piles and the small craft floats would be performed prior to the installation of twenty-two new 24-in (61-cm) steel guide and fender piles at the new location. Following the new pile installation, the small craft floats would be re-installed.

2.2.1.9 Shoreline/Subtidal Stabilization

Vibroflotation and replacement, similar to what would be completed within the approach bulkhead described above, would be conducted in an estimated 145-ft by 55-ft (44.2-m by 16.8-m) area under Berth 2 wharf replacement, in an approximate 84-ft (25.6-m) by 30-ft (9.1-m) area east of the southern approach bulkhead, and in a 28 ft (8.5 m) by 122 ft (37.2 m) area on the shoreside of the bulkhead to reduce or eliminate liquefaction and slope instability during seismic events. An approximately 30-in (76.2-cm) diameter vibroflot would be vibrated vertically into the subsurface sediment. The resulting hole would then be back filled with gravel as the vibroflot is removed to create stone columns in the ocean floor. This process would be repeated within a grid to place 623 stone columns about 30 in (0.76 m) apart.

Construction equipment for shoreline stabilization work may include barges, vibratory pile drivers, and vibroflots.

2.2.1.10 Sewer, Runoff, and Electrical Infrastructure

Sewer, runoff, and electrical infrastructure would be constructed throughout the Proposed Action:

- A combination pressure and gravity sewer would be constructed for the wharf and berths, including 4-in (10.2-cm) as well as 8-in (20.3-cm) pipes.
- Curbs and deck slope would funnel water into curb cuts and scuppers so that stormwater runoff discharges directly into Womens Bay.
- Electrical infrastructure would be constructed to support wharf services, such as power, fire water line, telecom, cable television, lighting, heat trace, equipment, and isolated and ground fault-protected and electrical service to each berth and associated power mounds.

2.2.1.11 Vessel Port Activities

FRC activity alternates between 3-week operational and maintenance periods with port calls occurring approximately every five days during operational periods. FRCs ingress and egress to and from the port at speeds up to 17.3 mph (15 kts). OPC activities rotates in a similar manner between operational and maintenance periods every three months. OPCs conduct port calls approximately every two weeks during operational periods. When vessels are at port during maintenance periods, they will undergo corrosion prevention and hull preservation, to include preparation, priming, and painting of steel and aluminum structures. Vessels also undergo

engineering maintenance including repairs to machinery, crane operations, oil changes, hot work, electrical work, and parts replacement. Refueling will be conducted at the fuel pier once per in-port period.

2.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. USCG would be unable to effectively complete its missions in the area. The No Action Alternative would not meet the Proposed Action's purpose and need.

2.2.3 Alternatives Considered but Eliminated from Detailed Analysis

2.2.3.1 Demolish and Replace Marginal Wharf

This alternative would have included demolishing the existing marginal wharf and constructing a new wharf. This alternative was considered in the Homeport Feasibility Study to meet the requirements for homeporting two FRCs and two OPCs. This alternative would provide a new marginal wharf with access to all shore services (water, fuel, sewer, electrical, crane, and waste oil removal). The existing, condemned marginal wharf would be partially demolished, access piers would extend 150 ft (45.7 m) farther outboard of the existing marginal wharf, two 300-ft (91.4-m) by 60-ft (18.3-m) approaches would be built, and a new 1,040-ft by 60-ft (317-m by 18.3-m) marginal wharf would be constructed. The new marginal wharf would homeport two OPCs on the outboard berths and two FRCs on inboard floating docks at opposite ends of the wharf. Up to 400 ft (121.9 m) of floating dock would be installed to accommodate the FRCs. This configuration would offer USCG the flexibility to accommodate the new assets at the new marginal wharf with additional assets at the unimproved cargo wharf and fuel pier.

This alternative was determined to be not feasible due to the estimated cost to rehabilitate the marginal wharf, which far exceeds the allotted budget for this Proposed Action. In addition, this alternative would increase moorage capabilities at Base Kodiak beyond what is allowed by the program funding provided to USCG. This alternative was therefore eliminated from further consideration.

2.3 BEST MANAGEMENT PRACTICES AND CONSERVATION MEASURES INCLUDED IN THE PROPOSED ACTION AND ALTERNATIVES

As a standard condition of the contract design and specifications, USCG will require all contractors and subcontractors to employ BMPs during construction to minimize impacts on the environment. BMPs are also part of the Base Kodiak Contractors Environmental Guide (USCG 2002).

To reduce potential operational, traffic, and noise impacts, the construction work will be scheduled to avoid peak hours or sensitive times or areas. Staging and laydown areas will be appropriately located to avoid impacts.

In addition, included in the Proposed Action are a number of conservation measures that have been developed with technical assistance from the United States Fish and Wildlife Service (USFWS) and through discussions with National Oceanic and Atmospheric Administration (NOAA)

Fisheries and U.S. Army Corps of Engineers (USACE). Permits and approvals from these and other agencies with jurisdiction over the Proposed Action are being pursued. Consequently, conservation measures may be refined, and additional measures may be required as terms and conditions of these permits and approvals. BMPs and conservation measures are described in the following sections for each resource, as applicable.

2.3.1 Best Management Practices for Air Quality

Air quality will be managed according to the following guidance based on constituents:

Dust

- Although soil-based dust generation as part of this Proposed Action is expected to be minimal given the nature of the work, proper dust control measures will be implemented by all contractors during construction, as required by standard USCG contract provisions, including controls for managing dust generated by cutting and working with concrete or asphalt, sandblasting, or spray painting.

- USCG will ensure the design-build contractor (contractor) minimizes dust generation and contains by implementing measures such as:

    - wet cutting concrete and asphalt,

    - using tarps and windscreens under and around sandblasting or painting operations, and

    - cleaning surfaces by vacuuming, wet mopping, or wet brooming while dust is being generated.

Volatile organic compounds

- USCG will ensure the contractor develops and implements a volatile organic compounds (VOC) Compliance Plan consistent with any local VOC laws and regulations.

- The plan shall demonstrate that the use of paints, solvents, adhesives, and cleaners comply with local VOC laws and regulations and that all required permits have been obtained or will be obtained prior to starting work involving VOCs.

- An acceptable compliance plan will contain, at a minimum:

    - a listing of each material subject to restrictions in the air quality management district in question;

    - the rule governing its use;

    - a description of the actions, which the contractor will use to comply with the laws and regulations; and

    - any changes in the status of compliance during the life of the contract.

- Alternatively, the compliance plan will state if no materials are subject to local air quality restrictions or if there are no restrictions.

Ozone-depleting substances

- The contractor will not use compounds categorized by the CAA as Class 1 ozone-depleting substances.

2.3.2 Best Management Practices for Geology and Soils

- Site-specific seismic and soil conditions will be appropriately addressed in the site construction plan.

- Specific control measures for erosion are discussed in Section 3.6.

- Specific control measures for contaminated soils and sediments that may be encountered are discussed in Section 3.12.

- Additional measures to minimize geologic hazards include designing new and rebuilt structures and shoreside stabilization, in accordance with American Society of Civil Engineers (ASCE) Seismic Design of Piers and Wharves (ASCE 61-14).

2.3.3 Best Management Practices for Biological Resources

The Proposed Action takes place entirely in, over, and adjacent to the aquatic environment, which contains sensitive habitats and species that require special consideration to be protected from incidental harm during Proposed Action activities.

Included in the Proposed Action are a number of conservation measures that were developed with technical assistance from the USFWS and through initial discussions with National Marine Fisheries Service (NMFS) during preparation of this EA. Permits or approvals from these and other agencies with jurisdiction over the Proposed Action are being pursued concurrently with EA preparation. Any other measures that are required during Proposed Action-specific reviews by those agencies will also be incorporated.

The following BMPs to protect aquatic life will be required by the USCG to be employed, as applicable and pending ESA Section 7 consultation and coordination during the permitting process. Changes may be made to these BMPs based on agency feedback and permit stipulations.

2.3.3.1 Best Management Practices for Pile Removal and Installation

- All treated wood will be handled in compliance with the Western Wood Preservers Institute's *Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments*.

- contractor shall provide a pile extraction and installation plan that maximizes removal and installation of piles in the dry, at lowest practical tide condition, and at slack water, in that order, to the extent practicable.

- The pile extraction and installation plan shall identify the anticipated pile installation methodology(ies) based on the pile type, the substrate characteristics, seismic stability, and other site-specific considerations and shall consider the preference that vibratory pile driving be employed whenever feasible.

- The barge and tug shall be kept from grounding.

- If feasible, piles will be removed by direct pull. Vibratory extraction is the preferred method of pile removal if direct pull is not feasible.

- To protect marine mammals, the following "ramp-up" procedure will be followed for impact pile driving:

    - Impact hammer is initiated with one impact drive on the pile (at reduced energy if possible) followed by a 30-second waiting period; this procedure is to be repeated thrice in total, allowing any marine mammals in the area sufficient time to evacuate. Once ramp up is complete, full power and rate of driving may commence.

- Operator will "wake up" piles using vibration to break the skin friction bond between the pile and soil. Bond breaking prevents pulling out a large block of soil, possibly breaking the pile in the process. Usually there is little or no sediment attached to the skin of the pile during withdrawal. In some cases, material may be attached to the pile tip, in line with the pile.

- Crane operators shall be trained to remove piles slowly. This will minimize turbidity in the water column as well as sediment disturbance.

- Impact hammers shall only be used for proofing or when required due to seismic stability or substrate type. The pile will be driven as deep as possible with a vibratory hammer first, then the impact hammer will be used to drive the pile to its final position. To reduce sound pressure and intensity, a smaller hammer will be used to reduce sound pressure; if a hydraulic hammer is used, the impact force will be reduced to lessen the intensity of the resulting sound.

- The greatest potential for creosote introduction into the environment occurs if equipment (bucket, steel cable, and vibratory hammer) pinches the creosoted piling below the water line. Therefore, the extraction equipment used for pulling the pile must be kept out of the water. The following items will be considered:

    - Piling must not be broken off intentionally by twisting, bending, or other deformation. This practice has the potential for releasing creosote to the water column.

    - Work surface on barge deck or pier shall include a containment basin for piles and any sediment removed during pulling.

- The basin may be constructed of durable plastic sheeting with sidewalls supported by hay bales or other structures to contain all sediment. Water runoff can return to the waterway after suitable treatment if it meets water quality standards.

- Upon removal from substrate, the pile shall be moved expeditiously from the water into the containment basin. The pile shall not be shaken, hosed off, left hanging to drip dry, or any other action intended to clean or remove adhering material from the pile.

- Work surface shall be cleaned by disposing of sediment or other residues along with cut off piling.

- Containment basin shall be removed and disposed of in accordance with BMPs or in another manner complying with applicable federal and state regulations.

- Cutting would be necessary if the pile has broken off below the water line or at or near the existing substrate so that it cannot be removed without excavation. Pile cutoff is an acceptable alternative if vibratory extraction or pulling is not feasible; however, every attempt shall be made to completely remove the piling in its entirety before cutting. If a pile is broken or breaks more than 2 ft (0.61 m) above the mudline during vibratory extraction, one of the methods listed below shall be used to cut the pile. Prior to commencement of the work, the contractor shall assess the condition of the pilings. The contractor shall create a log outlining the location and number of pilings that need to be cut and have this log available to the agencies upon request. The following shall be observed when removing broken piling:

    - A chain shall be used, if practical, to attempt to entirely remove the broken pile.

    - If the entire pile cannot be removed, piling shall be cut off just above the mudline.

    - Piles shall be cut off at lowest practical tide condition and at slack water. This is intended to reduce turbidity due to reduced flow and shorten the water column through which the pile must be withdrawn.

    - If the piling is broken off less than 2 ft (0.61 m) above the mudline or below the mudline, the piling may remain.

    - The contractor shall provide the location of the broken or cut pile. This will be necessary as part of debris characterization should future dredging be a possibility in the area of piling removal.

2.3.3.2 Best Management Practices for Sunflower Sea Stars

If sunflower sea stars remain unlisted under the ESA prior to and during construction, the following measures will be implemented:

- Sea stars and crabs will be removed from piles as each pile is extracted. Project Protected Species Observers (PSOs) shall be trained in sunflower sea star identification and will assist construction crews in determining which sea stars need relocating. If the sea star cannot be identified to species in the field, a presumption that it could be a sunflower sea star will be made, and it will be treated accordingly. Sunflower sea stars will be documented, photographed, and relocated to a nearby pre-selected rocky intertidal location or kelp bed. The relocation areas will be selected based on NMFS' Alaska ShoreZone Mapping Website, site-specific field conditions, and/or NMFS' recommendation. All other sea stars and crabs will be gently returned to the water column on location.

If sunflower sea stars are listed under the ESA prior to or during construction, the following measures will be implemented:

- To prevent direct placement of a pile on a sunflower sea star, a pre-construction survey and biweekly (every other week) surveys of the seafloor in areas proposed for pile placement will be conducted.
    - If a sunflower sea star is identified during the pre-construction or biweekly surveys, more frequent surveys prior to piling may be required.
    - The contractor, at their own discretion, may monitor the seafloor during the placement of every pile in lieu of a pre-construction or bi-weekly surveys.
    - If a sunflower sea star is attached to a pile being removed from the water, the sunflower sea star will be gently removed from the pile by the Lead PSO, or a crew delegate due to possible safety concerns, and immediately released into an intertidal location nearby. The star will not be placed in a container nor transported any significant distance away from the project location.
- To prevent direct placement of fill on a sunflower sea star, each day prior to fill operations below MHW along the sides of the dock, sunflower sea star surveyors will systematically examine all intertidal and subtidal areas that may be impacted by fill operations during that day.
- Survey transects will run roughly parallel to shore, with two-meter separation between each transect line, until the area that will be covered with fill that day is surveyed. Surveys may be done on foot at low tide or by snorkelers in areas where the substrate is not visible by foot during low tide. During surveys, bathymetry must be sufficiently visible so that surveyors can accurately assess for presence of sunflower sea stars of all size classes. In areas that are not visible to snorkelers, surveys may be done by a diver or remotely operated vehicle equipped with a camera.
    - As feasible, sunflower sea stars that are found in fill areas will be gently moved into a container of water collected at the site and taken to a location at least 328 ft away from the project area and gently released onto the substrate. The number and approximate diameter of sunflower sea stars moved will be recorded and reported to NMFS.

- If it appears that a sunflower sea star has sea star wasting syndrome or if any dead sunflower sea stars are observed, pictures of the individuals will be taken, and infected individuals will be counted. The infected sunflower sea stars will not be touched or moved. All sunflower sea star findings will be reported to NMFS, including latitude/longitude and transect line, at akr.section7@noaa.gov.

2.3.3.3 Best Management Practices for Disposal of Piling, Sediment, and Construction Residue

- Care will be taken to minimize debris from entering water during pile extraction and installation, and debris will be removed promptly if it does enter the water. Materials and construction methods shall be used that avoid or minimize introduction of toxic materials, petrochemicals, and other pollutants to surface water during and after construction. Appropriate equipment and material for hazardous material cleanup must be kept at the site.

- Removed piles shall be placed in a containment basin to capture any adhering sediment. This shall be done immediately after the pile is initially removed from the water. The following measures will be observed:

  - A basin set up on the barge deck or pier shall be used.

  - The basin may be made of hay bales and durable plastic sheeting and shall be protected from collecting rainwater when not actively used for placement.

- Piling shall be cut into lengths as dictated by the disposal facility. Cutting of the piling must be completed in a contained area such that no debris escapes.

- Piling, sediments, construction residue, and plastic sheeting from the containment basin shall be placed into a container for disposal.

- Material must be disposed of at a USCG-approved licensed solid waste disposal facility, in compliance with federal and state regulations.

- Hazardous materials, including, but not limited to, asbestos-containing materials, polychlorinated biphenyls (PCBs)-impacted material, and contaminated sediments, shall be separated and contained separately from non-hazardous materials and disposed of at a USCG-approved licensed solid waste disposal facility permitted to accept hazardous wastes in compliance with federal and state regulations.

- In the case a petrochemical sheen is observed:

  - Absorbent materials shall be employed and shall remain in place until all pollutants have been collected to the extent feasible and sheens dissipate.

  - Used absorbent materials shall be stored in an appropriate upland facility until transported to a permitted treatment, storage, and disposal facility.

  - The contractor will notify all required regulatory agencies and comply with reporting requirements. The Alaska Department of Environmental Conservation (ADEC) notification number is 1-907-269-3063.

- All disposed materials shall be deposited in a landfill that meets liner and leachate standards of ADEC Title 18 Alaska Administrative Code (AAC) 60 (18 AAC 60), Solid Waste Management.

- The contractor shall comply with all permit requirements.

2.3.3.4 Best Management Practices for Marine Mammal Protection

- During pile driving and in-water fill placement, PSOs will establish an exclusion zone, if and as appropriate, for the calculated Level A harassment (injury) threshold centered on the noise source at or below mean higher high water (MHHW) for all marine mammals (see list of marine mammals in Table 2; additional species may be analyzed for impacts during ESA Section 7 consultation).

- USCG is pursuing incidental take authorizations from NMFS and USFWS for Level A and Level B harassment from pile driving and in-water fill placement activities, as appropriate, which will include compliance with:

  - construction impact-minimization measures (see Sections 2.3.3.1 through 2.3.3.4); and

  - a robust marine mammal monitoring, mitigation, and reporting plan.

- During pile driving and in-water fill placement , as appropriate, PSOs will record observations of marine mammals within species- and activity-specific acoustic ensonification zones and will follow the procedures established in USFWS's *Observer Protocols for Pile Driving, Dredging and Placement of Fill* (USFWS 2012) for the northern sea otter and the most recent version of NMFS' Alaska region-specific marine mammal standard mitigation measures for other marine mammal species.

- PSOs will have the authority to halt and restart Proposed Action pile driving and in-water fill placement activities when mammals enter and leave their respective Level A ensonification zones.

- In addition to the OPC and FRC bridge teams being responsible for monitoring navigational hazards, environmental conditions, and marine life, including marine mammals and ESA-listed species, dedicated crew members, or watchstanders, on deck will assist in monitoring during nearshore and port transit activities.

- Watchstanders will complete required training to improve effectiveness of visual observations for marine mammals and other ESA-listed species during nearshore and port transit activities.

- Watchstanders and bridge teams will follow avoidance and mitigation measures incorporated into policy and guidance, directives, and SOPs associated with the operation of vessels under the OPC Program during nearshore and port transit activities.

- Area-specific seasonal awareness notification messages will be issued to alert vessels operating in the area to the possible presence of concentrations of large whales.

- If a marine mammal or ESA-listed species is observed during nearshore and port transit activities, the dedicated monitor will relay sighting information to the vessel captain who will implement procedural mitigation actions to avoid approaching marine mammals when underway when safe and appropriate to do so.

- Watchstanders will monitor a 500-yd mitigation zone around whales during nearshore transit activities and, if a whale is observed within the zone, the vessel will maneuver to maintain distance, when possible. Additional information on potential impacts and mitigation related to ESA-listed species is included in the Biological Opinion.

Table 2. Potential List of Marine Mammals Subject to Observation

Species[1]	Protection Authority	Potential to Be In Hazard Area
Cuvier's beaked whale *Ziphius cavirostris*	MMPA	Low
Dall's porpoise *Phocoenoides dalli*	MMPA	Low
Fin whale *Balaenoptera physalus*	ESA, MMPA	Low
Gray whale *Eschrichtius robustus*	ESA, MMPA	Low
Harbor porpoise *Phocoena phocoena*	MMPA	Low
Harbor seal *Phoca vitulina*	MMPA	High
Humpback whale *Megaptera novaeangliae*	ESA, MMPA	Low
Killer whale *Orcinus orca*	MMPA	Low
Minke whale *Balaenoptera acutorostrata*	MMPA	Low
North Pacific right whale *Eubalaena japonica*	ESA, MMPA	Low
Northern fur seal *Callorhinus ursinus*	MMPA	Low
Northern sea otter *Enhydra lutris kenyoni*	ESA, MMPA	High
Pacific white-sided dolphin *Lagenorhynchus obliquidens*	MMPA	Low
Sperm whale *Physeter macrocephalus*	ESA, MMPA	Low
Beluga Whale *Delphinapterus leucas*	ESA, MMPA	Low
Blue Whale *Balaenoptera musculus*	ESA, MMPA	Low
Sei Whale *Balaenoptera borealis*	ESA, MMPA	Low

Notes:
[1]Depending on ESA Section 7 consultation with NOAA and USFWS and the project area agreed upon by the agencies during that consultation, additional ESA-listed species may be analyzed for potential impacts during that process.
MMPA – Marine Mammal Protection Act
ESA – Endangered Species Act

2.3.3.5 Best Management Practices for Listed Bird Protection

To avoid harm to and harassment of Steller's eider (*Polysticta stelleri*), the USCG will follow USFWS protocols and will establish a 1,640.4-ft (500-m) radius in-water exclusion zone during use of an impact hammer and a 984.3-ft (300-m) radius exclusion zone during use of a vibratory hammer. Exclusion zones will be centered on the location of hammer use and will be monitored by a PSO during pile driving and removal occurring between November 1 and April 30. The PSO will record observations of Steller's eider within the area and will implement the following BMPs during pile driving activities:

- The PSO must be able to identify Steller's eider and be equipped with binoculars, range-finder, two-way radio communication with the equipment operators, and logbook.
- Monitoring will occur for 30 minutes prior to initiation and during all pile driving and removal.
- If a Steller's eider approaches the monitoring area, all construction work will be halted immediately; work may resume when the animal moves outside the monitoring area of its own accord.
- The PSO will have the authority to stop construction work if the Steller's eider is observed approaching the exclusion zone.
- The PSO will have no other primary duty than to watch for and report on events related to protected species, including Steller's eiders.
- Within 60 days of completion of the Proposed Action, the USCG will report all Steller's eider monitor observations to USFWS. The report will include all Steller's eider sightings (or confirmation on the absence of sightings), estimated distance from Proposed Action operations, and any shutdown during construction activities due to eiders approaching the exclusion zone.

These BMPs may be altered as directed or required by USFWS during or resulting from the ESA Section 7 consultation process. The short-tailed albatross is not anticipated to be present near the USCG proposed project area. In the unlikely event a short-tailed albatross is observed, the contractor shall implement the same protocols as applies to Steller's eiders.

2.3.3.6 Best Management Practices for Migratory Bird Protection

- Structures and any related work areas shall be surveyed for active nests no more than three days prior to the start of construction activities during the migratory bird breeding season (early spring to early fall). If more than three days have passed since construction activities have occurred at a specific site, that area will be resurveyed prior to recommencement of work.
- If an active nest is discovered (e.g., one containing eggs or chicks or is otherwise being used by birds for breeding), a 300-ft (91.4-m) buffer will be established around the nest and the nest will be monitored for potential indicators of stress, including flushing.

- Based on these observations, the buffer may be reduced by a qualified biologist if it appears that a reduced buffer does not alter the bird's behavior.
- The buffer will remain in place until the young have fledged.

2.3.4 Best Management Practices for Water Quality

- The contractor shall comply with the requirements in the following:
  - Erosion and Sediment Control Plan,
  - Stormwater Pollution Prevention Plan (SWPPP)
  - Applicable water discharge permit regulations,
  - Total Maximum Daily Load limits,
  - state and local water resource protection and erosion reduction measures, and
  - any other applicable water quality regulations.
- Conditions of the plans and permits will involve BMPs such as the following to minimize release of contaminants and adverse effects on water quality, wetlands, and Waters of the United States (WOTUS):
  - comply with Base Kodiak's Spill Prevention Control and Countermeasure (SPCC) Plan;
  - ensure that as little debris as possible falls into bay waters;
  - ensure that as little decking and other building materials as possible fall into bay waters during construction;
  - perform in-water work during low tide to the extent possible (it is unlikely that pile driving could fully coincide with tidal changes, as it is an all-day operation);
  - cover soil stockpiles and exposed (graded) slopes during inclement weather conditions;
  - use erosion control techniques such as mulching, filter fences, straw bales, or diversion terracing;
  - construct drainage control devices to direct surface water runoff away from slopes and other graded areas;
  - revegetate areas as soon as possible after completing grading, if applicable;
  - ensure that construction equipment is in good repair, without leaks of hydraulic or lubricating fluids, and use drip pans when vehicles are parked;

  - perform fueling and maintenance of vehicles off-site or at designated areas with secondary containment and stocked with spill response sorbent pads and equipment; and

  - use filter fabric to catch debris in wash water that will go back into the bay.

  - if feasible, use a silt curtain around piles being drilled for a rock socket to partially contain spoils, minimizing effects on turbidity.

  - transport hazardous materials (i.e. contaminated sediments) via routine barge delivery methods (i.e. not project-dedicated) to an approved disposal facility in the lower 48.

- Planning-level sediment and soil sample borings were performed at the USCG proposed project area during construction Request for Proposals (RFP) development. The construction contractor may be required by regulating agencies to conduct additional sampling. If contaminants are found, appropriate measures to protect water quality will be taken.

- The contractor will be required to create an Environmental Management Plan (EMP) that will be submitted to ADEC and U.S. Environmental Protection Agency (EPA) for review, comment and approval, and the contractor will abide by it for any construction related activities.

2.3.5 Best Management Practices for Cultural Resources

- The USCG consulted with the Alaska State Historic Preservation Office (SHPO) and the National Park Service (NPS) regarding its determination that "no historic properties would be affected by the Proposed Action" and received concurrence for the determination by the agency.

- If previously unknown cultural resources are encountered, the contractor shall halt construction activities, and the resource will be evaluated by qualified personnel.

  - If the resource is historically significant, the Proposed Action will be redesigned to reduce or eliminate impacts to those resources.

  - If avoidance of the resource is not practically feasible, USCG will initiate consultation with the Alaska SHPO and the NPS, which will include consultation with tribes and other public stakeholders.

2.3.6 Best Management Practices for Hazards and Hazardous Substances

- The contractor shall develop an EMP prior to construction. The purpose of the EMP is to ensure that all Proposed Action activities comply with the ADEC 18 AAC 75 regulations, RCRA regulations, and Base Kodiak's RCRA Permit AK9690330742.

- The EMP shall be submitted to ADEC and the EPA for review and approval prior to implementation.

- The EMP shall include protocols for handling, storage, cleanup, and disposal of petroleum products and other hazardous substances used during construction.

- Planning-level sediment and soil sample borings were performed at the USCG Proposed project area during construction RFP development. The construction contractor may be required by regulating agencies to conduct additional sampling.

- The contractor shall comply with Occupational Safety and Health Administration (OSHA) regulations regarding safety measures and precautions on the job site.

- The contractor shall stop work and notify the National Response Center if undocumented areas of contamination are encountered.

- The contractor shall comply with the Integrated Support Command (ISC) Kodiak Contractor's Environmental Guide (USCG 1996), which contains policies and procedures to ensure conformance with all applicable federal, state, local, and USCG environmental requirements. These policies and procedures involve hazardous materials management, hazardous waste management, protocols for accidental releases, and worker safety and training requirements.

- The contractor shall adhere to the Base Kodiak Integrated Emergency Response and Prevention Plan to prevent and respond to accidental release of hazardous substances. This plan addresses federal and state requirements for a Marine Transportation-Related Facility Response Plan (33 CFR 154.1045), SPCC Plan (40 CFR 112.7), Facility Response Plan (40 CFR 112.20), and State of Alaska Oil Discharge Contingency Plan (18 AAC 75).

2.4 REQUIRED PERMITS AND APPROVALS INCLUDED IN PROPOSED ACTION AND ALTERNATIVES

As listed in Section 2.3, BMPs have been identified through coordination with regulatory agencies with jurisdiction over the Proposed Action to avoid or minimize impacts on sensitive resources to less than significant levels. USCG is currently completing permit applications and initiating associated consultations. USCG assumes future permits or approvals will include measures similar to those described in this EA. Refinements to these measures or additional terms and conditions to further reduce impacts may be required in final permits or approvals. Measures and conditions of approval developed during agency consultation will further support avoidance of significant impacts on sensitive resources or reduce these impacts to less than significant levels.

Permits and approvals required for the Proposed Action are described in the following sections.

2.4.1 Endangered Species Act

Section 7 of the ESA, as amended, applies to federal agency actions and sets forth requirements for consultation with USFWS and/or NMFS to determine whether the Proposed Action may affect ESA-listed endangered or threatened species or its designated critical habitat.

Section 7 consultation for the Proposed Action will be initiated for 11 ESA-listed and one proposed species and associated critical habitat potentially occurring, seasonally or sporadically, in the project area (see discussion in Section 3.7.1.1).

USCG preliminarily determined that the Proposed Action may adversely affect several of the listed species and designated critical habitat and will seek authorization for incidental take for those species under the ESA through a formal consultation process with USFWS and NMFS. Informal consultation will be completed for any species that are not likely to be adversely affected. USCG received technical assistance from the USFWS and NMFS on preliminary design and mitigation measures to avoid and minimize adverse impacts. The agencies will make final determinations of effect after USCG initiates ESA Section 7 consultation with submittal of a Biological Assessment, issuing either a Letter of Concurrence for species not likely to be adversely affected or a Biological Opinion with an Incidental Take Statement for species likely to be adversely affected. All measures included in agency ESA Section 7 documentation will be incorporated into the Proposed Action.

2.4.2 Magnuson-Stevens Fishery Conservation and Management Act

The MSA, passed in 1976 and reauthorized in 2006, mandates that NMFS identify essential fish habitat (EFH) for all federally managed marine fish species. Federal agencies are required to consult with NMFS on all proposed activities authorized, funded, or undertaken by the agency that may adversely affect EFH. The North Pacific Fishery Management Council (NPFMC) designated EFH for g*roundfish fisheries in the Gulf of Alaska* and salmon fisheries in the Exclusive Economic Zone (EEZ) off Alaska, which overlap with the project area. The following Fishery Management Plans (FMPs) provide descriptions of EFH potentially affected by the Proposed Action:

- *Fishery Management Plan for Groundfish of the Gulf of Alaska* (NPFMC 2020); and
- *Fishery Management Plan for the Salmon Fisheries in the EEZ off Alaska* (NPFMC 2021).

USCG preliminarily determined that the Proposed Action may adversely affect EFH reducing the quality and/or quantity of EFH available to the fisheries. USCG initiated early coordination with NMFS and included resulting BMPs and conservation measures in the Proposed Action (see Section 2.3) to minimize adverse effects on EFH. An analysis of potential effects on EFH as a result of the Proposed Action will be included in the Biological Assessment submitted to NMFS during ESA Section 7 consultation.

2.4.3 Marine Mammal Protection Act

The MMPA of 1972 prohibits the taking of marine mammals. The term "take" means to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal (NOAA 2009a).

To minimize potential effects, including takes, on marine mammals from pile driving, preliminary mitigation measures and BMPs were developed with technical assistance from NMFS and USFWS, as described in Section 2.4.1. Additional measures may be developed during coordination with NMFS and USFWS after USCG submits a request for incidental take authorizations under the MMPA to the agencies. Any additional measures included in the MMPA authorizations will be incorporated into the Proposed Action.

2.4.4 Migratory Bird Treaty Act

MBTA of 1918 is the domestic law that affirms, or implements, the United States commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to the United States and at least one of the other four countries (i.e., species occur in the United States and at least one of the other countries at some point during their annual life cycle). EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, directs federal agencies to take certain actions to further implement MBTA and to conserve migratory birds. The order prohibits takes of migratory birds and/or their eggs, feathers, or nests.

In accordance with current Department of Interior policy, incidental take of MBTA species is not precluded under MBTA. In accordance with MBTA, USCG internal policy, and its Memorandum of Understanding with USFWS pursuant to EO 13186, USCG will avoid all incidental take of MBTA species. Conservation measures have been developed with technical assistance from USFWS and are incorporated as BMPs into the Proposed Action (see Section 2.3.3.6). USCG has determined that the Proposed Action will avoid the take of migratory birds through implementation of those conservation measures.

2.4.5 Rivers and Harbors Act and Clean Water Act

Section 10 of the Rivers and Harbors Act of 1899 prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Section 10 requires approval by USACE for the placement of structures into or over navigable waters of the United States and for work in or affecting navigable waters of the United States. Section 404 of the CWA gives USACE the authority to regulate disposal of dredge or fill material in waters of the United States, including coastal wetlands, tidelands, and marine waters below the HTL. In-water construction as part of the Proposed Action will require Section 10, Section 404, and Section 401 approvals.

USCG has initiated pre-application coordination with USACE to determine the type of permit required (Nationwide Permit, Letter of Permission, or Standard Permit) and file required documentation. Possible conditions of the permit will be determined after required permit documentation is filed. BMPs to avoid impacts on water quality have been preliminarily determined and described in Section 2.3.4; however these BMPs may change based on coordination with regulating agencies including USACE.

ADEC has been authorized to implement Section 401 of the CWA for Water Quality Certification (WQC) in Alaska. Projects requiring a CWA Section 404 approval require a CWA Section 401 WQC. The purpose of the certification process is to ensure that federally permitted activities comply with the federal CWA, state water quality laws, and any other applicable state laws. Under Section 401 of the CWA, federal agencies may not issue a permit before ADEC makes a WQC determination or waives its right to review. Any conditions stipulated by ADEC during this process would become part of the CWA authorization.

2.4.6 National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to consider and evaluate the effect that federal projects may have on historic properties under their jurisdiction. Base Kodiak is listed on the NRHP as a Historic District and is designated as the Kodiak Naval Operating Base (NOB) National

Historic Landmark (NHL). The fuel pier and cargo wharf are outside of, but adjacent to, the Historic District and NHL. Building 512, Building 549, Building N73, and Building 614 are within the boundaries of the Historic District and the NHL but are not listed individually on the NRHP or as contributing resources to either the Historic District or the NHL.

USCG determined that the Proposed Action would have not adversely affect any resources listed or eligible for listing on the NRHP. USCG consulted with the SHPO and NPS regarding its determination and received concurrence with the determination. USCG will reinitiate Section 106 consultation, if necessary once detailed construction planning has begun.

2.4.7 Resource Conservation and Recovery Act

The Proposed Action would be within a RCRA-contaminated site, Solid Waste Management Unit #32 (Inner Womens Bay), and on land historically used for industrial purposes. As described above in Section 2.3.6, the contractor will prepare an EMP that describes how potentially contaminated soil, groundwater, and marine sediments will be tested for contaminants and subsequently handled during project construction and utility installation to ensure that all Proposed Action activities comply with ADEC 18 AAC 75 regulations, RCRA regulations, and Base Kodiak's RCRA Permit AK9690330742.

Additionally, ADEC must approve of the movement and disposal of contaminated soil and water from a site, in accordance with 18 AAC 75.325(i), 18 AAC 75.370(b), and 18 AAC 78.274(b). The Contaminated Media Transport and Treatment or Disposal Form will be submitted to ADEC to document this approval.

Other measures that will be included in the Proposed Action or alternatives to address potential contamination are described in Section 2.3.6.

2.4.8 Toxic Substances Control Act

The Proposed Action has the potential to encounter PCB-impacted building materials, sediment, soil, and/or groundwater. Depending on the inferred source of PCB impacts and detected concentrations, notification or approval of removal activities may be required by 40 CFR 761.

2.4.9 Alaska Drinking Water Regulations

The Proposed Action would add length to the existing water and sewer lines to the pier. ADEC 18 AAC 80.205 requires community water systems to have written approval of engineering plans by ADEC prior to any construction, installation, alteration, renovation, or improvements. USCG will not commence alterations to the Base Kodiak drinking water system needed for the Proposed Action until final engineering design is completed and submitted to ADEC for review and written approval is received.

2.4.10 Alaska Wastewater Regulations

Base Kodiak operates a wastewater treatment plant that operates under Alaska Pollutant Discharge Elimination System (APDES) Permit AK0020648. A determination has yet to be made on whether the Proposed Action would add new sources and wastewater collection lines to the Base Kodiak wastewater system, constituting a significant plan change under Alaska wastewater regulations. Currently the existing sewer line is expected to remain intact, with additional length added to the

line to accommodate the new pier or pier extension. ADEC 18 AAC 72.010 requires permitted domestic wastewater systems to have written approval of engineering plans by ADEC prior to constructing, installing, or modifying any part of a domestic wastewater collection, treatment, storage, or disposal system. USCG will not commence alterations to the Base Kodiak wastewater system needed for the Proposed Action until final engineering design is completed and submitted to ADEC for review and written approval is received. If upgrades to the main sewer line are needed, the contractor shall coordinate with Base Kodiak and ADEC.

2.4.11 Alaska Stormwater Regulations

Base Kodiak's industrial stormwater discharges are regulated under a multi-sector general permit (MSGP) for stormwater, APDES General Permit for Stormwater Discharges AKR06AD38. Although the Proposed Action would add new sources of stormwater, the stormwater line would be connected to the existing stormwater distribution system. No additional outfalls are anticipated. The existing permit will need to be updated to reflect the new sources of stormwater as well as any required modifications to sampling protocols. USCG will not commence construction of the Proposed Action until final engineering design is completed and submitted to ADEC for review and written approval of the modified stormwater permit is received.

Construction of the Proposed Action will require coverage under the APDES Construction General Permit for stormwater. An Excavation Dewatering General Permit will also be required for any subsurface dewatering performed for the Proposed Action within 1,500 ft (457.2 m) of a known contaminated site, and an approved EMP to properly store and dispose of water and soil generated during excavation will be prepared. Hydrostatic testing and disinfection of new water lines constructed under the Proposed Action will require a permit for disposal of chlorinated water and will be part of the contractor's responsibility during construction. USCG will not commence construction of the Proposed Action until final engineering design is completed and written approval for coverage, where necessary, under the Construction General Permit, Excavation Dewatering General Permit, and permit for discharge of water from hydrostatic testing is received.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

3.1 INTRODUCTION

This section describes the existing environmental conditions of Base Kodiak, focusing on resources potentially affected by the Proposed Action. These resources include land use; air quality; noise; geology and soils; biological resources; water resources; cultural resources; transportation; utilities, infrastructure, and services; and hazards and hazardous substances. Following a discussion of the affected environment for each resource is a discussion of the environmental impacts that could result from implementing the Proposed Action.

The affected environment sections provide an environmental baseline of each resource existing conditions in the project area at the time this document was prepared. The regulatory framework of applicable laws, ordinances, regulations, and guidance pertinent to the resource category is also presented, where appropriate.

The environmental consequences sections provide an analysis of the potential environmental impacts that could result from implementing the Proposed Action or alternatives. Direct, indirect, and cumulative impacts are analyzed for each resource. Direct impacts are caused by the Proposed Action and occur at the same time and place as the Proposed Action. Indirect impacts are caused by the Proposed Action and occur later in time or are farther removed in distance but are still reasonably foreseeable. Cumulative impacts result from the incremental impact of the Proposed Action when added to other past, present, reasonably foreseeable future actions, regardless of what agency or entity undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over time.

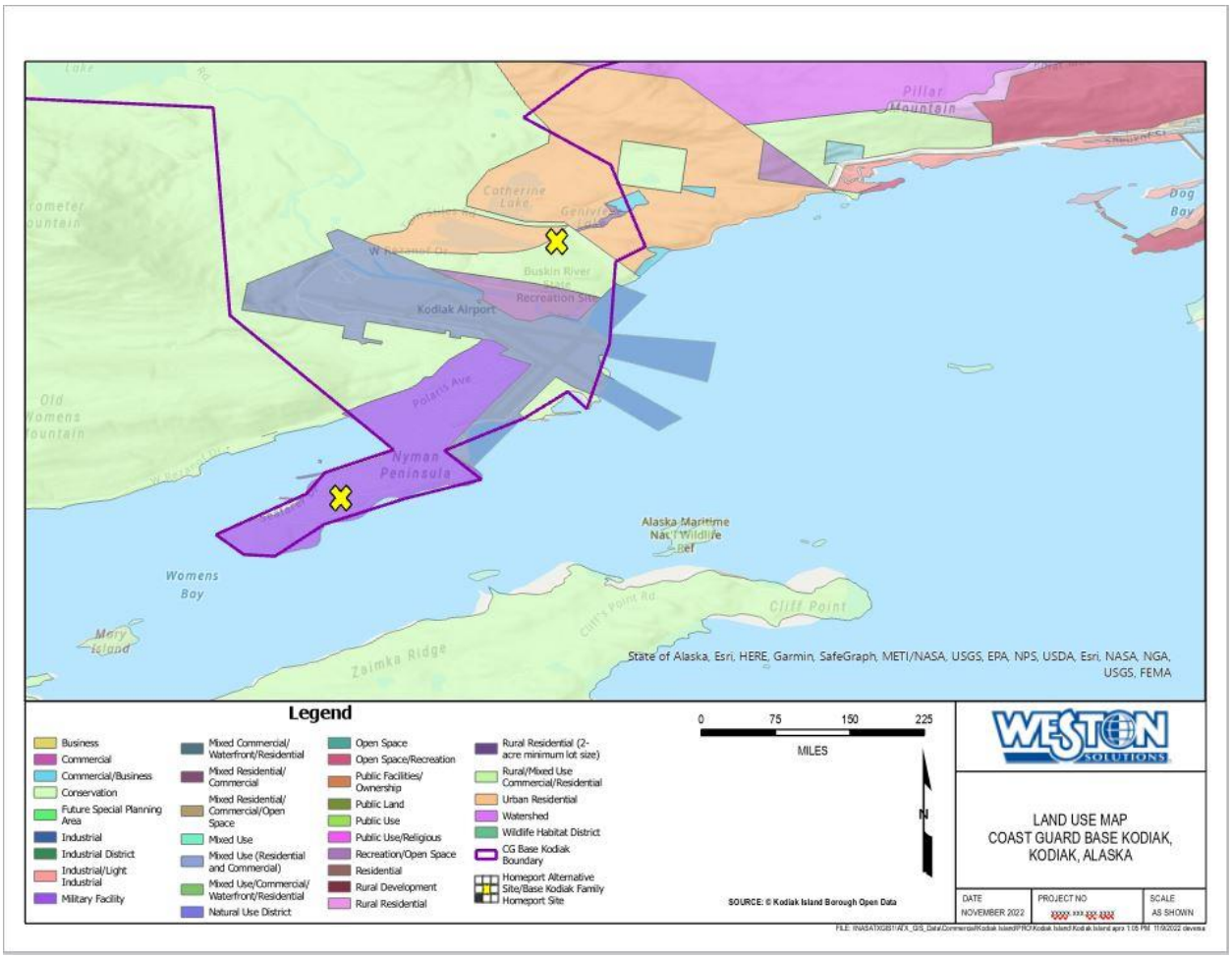
NEPA does not prescribe specific significance criteria but rather states that the environmental impacts should be evaluated in terms of their context, intensity, and duration. Context refers to the geographic area (spatial extent) of impact, which varies with the physical setting of the activity and the nature of the resource. Intensity refers to the severity of the impact; evaluation of the intensity of an impact considers the sensitivity of the resource and other factors of context to determine the degree or magnitude of the impact relative to the affected environment. Duration refers to how long the impact may last and may be either short or long term.

3.2 LAND USE

3.2.1 Affected Environment

Base Kodiak is on the northeastern coast of Kodiak Island, AK, which is in the GOA (Figure 3). Base Kodiak can be divided into three areas: the port-related waterfront and other industrial uses (primarily warehousing and fuel tanks) on Nyman Peninsula, the Kodiak Air Station on the inner terminus of Womens Bay, and the residential, retail, and commercial uses that lie between the air station and the Kodiak Airport (Figure 1). The developed portion of the base lies within the Kodiak NOB NHL, although the project area lies outside the landmark boundary (NPS 2003).

Figure 3. Land Use Near the Project Area



The lands and facilities around Base Kodiak, including submerged lands, are owned by the U.S. government. The nearby Kodiak Airport lands and facilities are also owned by the U.S. government and are leased to the Alaska Department of Transportation and Public Facilities (Kodiak Chamber of Commerce 2008). USCG owns submerged lands around Base Kodiak; some submerged lands are also administered by USFWS as part of the Alaska Maritime National Wildlife Refuge. Land use near the Proposed Action area includes primarily port-related and industrial uses, except for base housing and barracks, which are surrounded by other residences and support facilities. Other nearby land uses surrounding Base Kodiak include transportation corridors and land used for recreation and fish and wildlife habitat.

Land use actions on Base Kodiak are controlled by USCG for support of missions in the District 17 AoR. The ISC Kodiak Master Plan, the most recent guidance document for land use at Base Kodiak, recommends renovation and modernization of facilities to support mission requirements, including upgrades to the cargo wharf.

Base Kodiak is zoned as a Military Facility by the Kodiak Island Borough. As a federal facility, Base Kodiak is generally exempt from state and local regulations. Chapter 4 of the Kodiak Island Borough Comprehensive Plan states: “The Coast Guard Base and other federal facilities are

generally exempt from state and local regulations, including taxation" (Kodiak Island Borough 2008).

3.2.2 Environmental Consequences

3.2.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have no land use impacts. To support the homeporting of two FRCs and two OPCs at Base Kodiak, as well as to provide temporary homeporting and long-term maintenance support for a third FRC, the Proposed Action would include waterfront structural improvements, utilities, and other site amenities. Other minor facility modifications would occur, including the construction of miscellaneous waterfront appurtenances, as required for an operable facility, and these facilities would all be located in an area of similar operational support land uses.

These proposed waterfront modifications would be a continuation of shore support functions at Base Kodiak and would be consistent with other existing uses in the area. The existing facility and waterfront would also be in operation during construction. This Proposed Action will not change existing land uses or land use patterns in the area and will be consistent with the Base Kodiak Master Plan.

3.2.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. USCG would be unable to effectively complete its missions in the area. No changes in land use or land use patterns would occur; therefore, there would be no land use impacts.

3.3 VISUAL RESOURCES

3.3.1 Affected Environment

The region of influence for visual resources is the Base Kodiak waterfront and viewpoints from across Womens Bay. Most of the visual area of influence is Base Kodiak.

Kodiak Island is characterized by rugged coastlines, dense stands of trees, lowland grassy meadows, and wetlands. Steep mountains, rocky mountain peaks, and mountain ranges extend from the island's coastlines into the inland interior. Birch, alder, willow, cottonwood, and Sitka spruce are common on the island. Streams, rivers, wetlands, inlets, bays, and offshore islands provide habitat for a diversity of scenic wildlife, including whales, bald eagles, sea birds, deer, elk, mountain goats, and spawning salmon.

Scenic quality in the Proposed Action area is characterized by a combination of developed and natural landscape features. The Base Kodiak waterfront is industrial in character. An access road, Seafarer Drive, parallels the shoreline of the entire Nyman Peninsula. Along the Base Kodiak waterfront, the land slopes downward to inner Womens Bay. The shoreline in the vicinity of the Kodiak piers consists of small stones, riprap, and bay muds interspersed with scrub-like vegetation. Overhead power lines follow the road, and light poles extend out onto the piers. Buildings near the project area are small- to medium-sized and provide industrial support and storage for vessels.

Small prefabricated-type buildings are located near the fuel pier. When looking toward the shore from the end of the piers, it is evident that the land rises above pier level and that newer-growth deciduous and evergreen trees dominate the skyline.

The views across Womens Bay from the waterfront are dominated by mountains rising steeply from the shoreline. West Rezanof Drive, along the north side of Womens Bay between the shoreline and the mountains, offers the only public off-site view of the Base Kodiak waterfront. This road, which lies at generally the same elevation as the Base Kodiak piers, is nearly 0.05 mile (mi; 0.08 km) west of the Base Kodiak waterfront. Recreational boaters may use portions of Womens Bay and could come within the nearshore visual field on the Proposed Action.

3.3.2 Environmental Consequences

Effects on visual resources would be considered significant if Proposed Action-related activities substantially altered the scale or the character of the existing area or substantially degraded the views from recognized sensitive viewpoints or receptors in the area.

3.3.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have minor temporary adverse impacts on visual resources during construction and repairs. The replacement of Berth 2 with a new 360-ft (109.7-m) cargo wharf, extension of the existing cargo wharf by approximately 150 ft (45.7 m), installation of two 4,000-ft^2 (0.09-ac) floating docks, and the mooring of the OPCs and FRCs would not result in a significant impact to visual resources as these changes would all be comparable to existing, developed uses in the area. All construction would occur approximately 0.5 mi (0.8 km) from viewpoints on West Rezanof Drive or from recreational users on Womens Bay.

3.3.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. The existing Naval Engineering Support Unit and Base Operations Support Services Contractor Laboratory would continue to be used. Given the lack of nearby sensitive viewpoints and the industrial character of the Base Kodiak waterfront, this would result in no change to the visual environment. Therefore, the No Action Alternative would have no impact on visual resources.

3.4 AIR QUALITY

3.4.1 Affected Environment

3.4.1.1.1 Climate

The climate in Kodiak is characterized as maritime, with long, mild winters and short, cool summers. Year-round weather is affected by cool and humid air masses due to proximity to the Pacific Ocean. Limited daily and annual temperature ranges are typical for Kodiak's climate. The average annual temperature ranges from 38 degrees Fahrenheit (°F; 3.3 degrees Celsius [°C]) to 41 °F (5 °C]. During the summer, the mean air temperature closely approximates the mean sea

surface temperature. The air temperature usually rises slightly above the mean sea surface temperature during August but falls below it in September. In winter, the mean maximum air temperature more closely resembles the mean sea surface temperature curve. The highest daily maximum temperatures occur with northwest winds in summer (U.S. Forest Service 2009).

Precipitation is abundant throughout the year but varies widely in amount depending on the month. Average annual precipitation ranges from 50 to 70 in (127 to 177.8 cm). A very high percentage of the precipitation falls simultaneously with the northeast to southeast winds. Small amounts of snow may fall as late as May or as early as September, with ground cover anticipated in November. Precipitation measurement is often difficult due to strong, gusty surface winds that frequently accompany precipitation. Although the prevailing wind direction is northwesterly in all months except May, June, and July and the average speed is about 11.5 mph (10 kts), NOAA data indicate extreme variability in both direction and speed. NOAA has recorded wind gusts over 103.6 mph (90 kts). USCGCs docked in Womens Bay have reported williwaw winds (sudden blasts of wind descending from the mountainous coast to the sea) off nearby mountains in excess of 138 mph (120 kts). Gusts of over 57.5 mph (50 kts) have occurred during each month of the year but are most likely to occur in the winter months (U.S. Forest Service 2009).

3.4.1.1.2 Air Quality

The CAA of 1970, as amended (42 U.S.C. 7401) regulates emissions from stationary, mobile, and area sources and establishes national ambient air quality standards (NAAQS) for pollutants that can harm human health or the environment. Under the CAA, EPA is responsible for revising these standards, when necessary, as new air quality data and related impacts on the human environment become available.

3.4.1.1.3 National Ambient Air Quality Standards

NAAQS have been adopted for six criteria pollutants—ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (particulate matter 10 microns or less [PM_{10}] and particulate matter 2.5 microns or less [$PM_{2.5}$]), and airborne lead. NAAQS may include primary or secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Averaging periods vary by criteria pollutants based on potential health and welfare effects of each pollutant. NAAQS are enforced by the states via local air quality agencies. States may choose to adopt their own air quality standards, but state standards must be at least as stringent as federal standards. Alaska adopted the federal standards as the state standards. Table 3 lists NAAQS (40 CFR 50).

Table 3. National Ambient Air Quality Standards

Pollutant	Averaging Times	Ambient Concentration Standard	Primary (P) or Secondary (S) Standard[1]
Ozone	1 hour	0.12 ppm (253 µg/m^3)	P, S
	8 hours	0.070 ppm (140 µg/m^3)	P, S
Carbon monoxide	1 hour	35 ppm (40 mg/m^3)	P
	8 hours	9 ppm (10 mg/m^3)	P
PM_{10}	24 hours	150 µg/m^3	P, S
$PM_{2.5}$	24 hours	35 µg/m^3	P, S
	Annual	12 µg/m^3	P
	Annual	15 µg/m^3	S
Nitrogen dioxide	1 hour	100 ppb (260 µg/m^3)	P
	Annual	53 ppb (100 µg/m^3)	S
Sulfur dioxide	1 hour	75 ppb	P
	3 hours	0.5 ppm (1,300 µg/m^3)	S
Lead	Rolling 3-month average	0.15 µg/m^3	P, S

Notes:
[1] P = primary standard (health-based); S = secondary standard (welfare-based)
Source: EPA. 2022. *NAAQS Table.* (https://www.epa.gov/criteria-air-pollutants/naaqs-table), updated April 5, 2022.
µg/m^3 — microgram(s) per cubic meter
mg/m^3 — milligram(s) per cubic meter
ppb — part(s) per billion
ppm — part(s) per million

Areas violating NAAQS are designated as "nonattainment" areas for the relevant pollutants. Areas in compliance with NAAQS are designated as "attainment" areas for the relevant pollutants. Areas of questionable status are generally designated as "unclassifiable" areas. Kodiak Island is an area designated as unclassifiable or attainment for all of the criteria pollutants.

As an attainment area, Kodiak Island is classified as a Class II area under CAA Prevention of Significant Deterioration guidelines. Air quality control regions are classified as either Class I, II, or III, indicating the degree of air quality deterioration the state or federal government allows while not exceeding NAAQS. As a Class II area, a moderate change in air quality due to industrial growth would be allowed while still maintaining air quality meeting NAAQS.

3.4.1.1.4 Regional and Local Air Quality

The ADEC Division of Air Quality monitors air quality throughout Alaska. The State of Alaska does not maintain air monitoring equipment on Kodiak Island because of the minimal industrial activity and the history of good air quality in the area.

3.4.1.1.5 Clean Air Act Conformity Requirements

Section 176(c) of the CAA contains regulations that apply specifically to federal agency actions. This section of the CAA requires federal agencies to ensure that their actions are consistent with the CAA and with applicable air quality management plans (state implementation plans). Agencies are required to evaluate their proposed actions to make sure they would not cause or contribute to new violations of any federal ambient air quality standards, would not increase the frequency or severity of any existing violations of NAAQS, and would not delay the timely attainment of NAAQS.

EPA has promulgated separate rules that establish conformity analysis procedures for transportation-related actions and for other (general) federal agency actions. The EPA general conformity rule requires a formal conformity determination document for federal actions occurring in nonattainment areas or in certain designated maintenance areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified thresholds. Because Base Kodiak is not located in a nonattainment area, the Proposed Action is exempt from the CAA general conformity rule.

3.4.2 Environmental Consequences

Effects on air quality will be considered significant if Proposed Action related activities endangered the attainment status of the air basin. As discussed, the CAA general conformity rule does not apply because Base Kodiak is not in a nonattainment area.

3.4.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The completion of waterfront structural improvements to support the homeporting of two FRCs and two OPCs at Base Kodiak, as well as providing temporary homeporting support and long-term maintenance support for a third FRC, would not result in a substantial change in vessel emissions from existing conditions. The new vessels would replace two vessels currently homeported at Base Kodiak: USCGC Alex Haley, and USCGC Douglas Munro. Both vessels will be decommissioned or relocated in advance of the OPC arrival. USCGC Cypress would remain homeported at Base Kodiak. Overall, the newer engines on the new FRCs and OPCs will have lower emissions than the vessels departing Kodiak, at least during low-speed transits inside the air basin. In addition, the FRCs and OPCs will spend much of the time outside the air basin such that operational emissions would not affect air quality or attainment statues in Kodiak.

Construction activities would have minor adverse impacts on air quality. These impacts would be localized, temporary, and short term and would occur from the following construction-related equipment and activities:

- Barge operations,
- Trenching,
- Application of solvents and coatings,
- Fugitive dust from vehicle and equipment use on unpaved areas, and
- Construction equipment operations, including cranes, impact or vibratory hammers, backhoes, bulldozers, dump trucks, and power tools.

BMPs described in Section 2.3.1 will be employed to control fugitive dust during construction.

The Proposed Action would not have a significant impact on air quality.

3.4.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. Under the No Action Alternative, no new construction or demolition would occur. The inability of FRCs and OPCs to homeport in the District 17 AoR could require these cutters to travel greater distances from remote USCG bases, resulting in a higher overall level of air emissions.

3.5 NOISE

3.5.1 Affected Environment

The project area is located on the waterfront area of Base Kodiak. Nearby infrastructure includes the fuel pier, a fuel farm, a small road network, cutter supply storage buildings, and personnel support facilities for shipboard personnel.

Sensitive human receptors, such as hospitals, schools, and daycare facilities, are not present in or in the immediate vicinity of the project area; the Base Kodiak Child Development Center (CDC) is approximately 0.8 mi (1.3 km) from the Proposed Action.

Vehicles, ships, and support equipment are the primary noise sources in the project area. Vehicle noise is transient and infrequent, generally contributing minimal noise production. Ships produce localized noise restricted to the area next to the piers. The Kodiak Airport is the largest noise source near Base Kodiak, though noise exposure contours of 65 day-night average sound level or greater do not extend beyond the airport boundaries (MAKERS Architecture and Urban Design LLP 1996).

3.5.2 Environmental Consequences

Noise effects would be considered significant if Proposed Action-related noise exposed sensitive human receptors to substantially higher levels of noise. Impacts on biological receptors are discussed in Section 3.7.

3.5.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

Construction (including pile driving and rock socket drilling) and demolition activities would introduce temporary and intermittent construction noise within the project area. This would be a minor adverse noise impact, because the closest identified sensitive human receptors (CDC) are approximately 0.8 mi (1.3 km) from the cargo wharf. Construction-related vehicle traffic around Base Kodiak and the cargo wharf would increase temporarily though it would not produce significant adverse noise impacts. Table 4 lists typical noise levels associated with typical construction equipment similar to that which would be used for Proposed Action.

Table 4. Construction Equipment Noise Levels at 50 ft

Equipment	Noise Level (decibels A-weighted) [50 ft from source]
Auger drill rig	85
Boring jack power unit	80
Compressor (air)	80
Concrete mixer truck	85
Concrete pump truck	82
Crane	85
Generator	82
Impact pile driver	95
Jackhammer	85
Vibratory pile driver	95

Notes:
Source: Federal Highway Administration – U.S. Department of Transportation, 2006
ft – feet

Long-term noise from cutters, vehicles, and other miscellaneous noise sources would increase slightly due to the increase in vessels and vehicles but given the essentially industrial and developed character of Base Kodiak, these would remain comparable to present levels.

The Proposed Action would not have a significant impact on existing noise levels in the project area.

3.5.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. Noise associated with ship or other vessel traffic would remain consistent with current noise levels.

3.6 GEOLOGY AND SOILS

3.6.1 Affected Environment

3.6.1.1.1 Geology

Kodiak Island was extensively glaciated during the late Pleistocene. The topography near the planning area is characterized by glacially scoured hills that are approximately 328.1 ft (100 m) above sea level (Combellick 1989). The underlying bedrock in the region consists primarily of compacted and metamorphosed dark-gray to black mudstone, siltstone, sandstone, and conglomerate (Solie and Reifenstuhl 1989). Dominant lithologies on Nyman Peninsula are an interlayered cretaceous period Kodiak formation phyllite and metagraywacke (Brown 1989). Bedding typically is 0.4- to 1.6-in (1- to 4-cm) thick and consistent throughout the area, with a prominent fracture system oriented approximately perpendicular to the bedding (Solie and Reifenstuhl 1989). The fine-grained nature of the rocks renders them highly impermeable, resulting in low yield of water wells and poor surface drainage.

Explorations at the site generally encountered loose to dense granular marine deposits overlying very dense glacial till, which was overlying bedrock. Depths and thicknesses of each layer were variable with the bedrock surface generally dipping to the north. Bedrock in the waterfront borings consisted of dark gray to black graphitic shale. Jointing primarily was high angle, spaced between 0.5 and 6 in (1.3 and 15.3 cm) apart.

3.6.1.1.2 Soils

The findings of a formal soil survey of northeastern Kodiak Island were published by the U.S. Department of Agriculture (USDA), Soil Conservation Service in 1960. The Proposed Action area was not included in this survey; however, soils can be assumed to be generally similar to those in adjacent parts of the island with similar topography and geology (USDA 1960). The history of glaciation in the area has led to deposits of till and clay sediment in low-lying areas, left when glaciers retreated. There is a thin, nearly continuous layer of pebbly, cobbly till overlain by silt loam 2 to 5 ft (0.61 to 1.5 m) thick (Combellick 1989). Soils also contain layers of volcanic ash up to several inches thick due to volcanic ash fall from the Alaska Peninsula volcanoes. These soils are poorly to moderately drained, and where the vegetation cover is disturbed, they are easily eroded. Soils are generally very fine grained and clay rich. Alluvial sand and gravel are common along the Buskin River, and thin sandy and silty marine and beach sediments and organic rich marsh sediments are present along the margins of Womens Bay. These sediments are highly erodible and compressible and have low bearing capacity (Kodiak Island Borough et. al. 2006).

Results from investigation of soil borings in the project area presented in a Geotechnical Engineering Report indicated underwater soils consisted of marine sediment overlying dense to

very dense granular soils resembling glacial till, consisting of sands and gravels with varying silt content and layers of non-plastic silt. Most of the offshore borings terminated in shale bedrock. Marine sediment and soil, where present, was generally loose to medium dense (Shannon & Wilson 2023). Surficial soils onshore at the site typically consisted of granular fill likely placed during construction of the existing dock (Shannon & Wilson 2023). Fill density was variable across the site and ranged from loose to very dense. Fill thickness ranged from the shoreline to approximately 25 ft onshore. Native soils were generally silty sands and gravel with some pockets of silt.

Due to the historical industrial uses and fuel storage in and near the project area, some soils present may contain elevated contaminant levels. Site contamination is discussed in Section 3.12.

3.6.1.1.3 Geologic Hazards

The northeastern Kodiak region has a high seismic potential. The primary seismic hazard comes from the Aleutian Megathrust fault zone; a subduction zone system capable of producing magnitude 9.2 earthquakes. These earthquakes are capable of producing tsunamis, widespread liquefaction, regional and local subsidence, and terrestrial and submarine slope failures. A seismically induced liquefaction potential is present in granular and non-plastic fine-grained sediments marginal to Womens Bay. Slope failure and/or lateral spreading is possible even on relatively shallow slopes. A high tsunami inundation and moderate subsidence potential exists in low-lying areas along Womens Bay. See Section 3.12 for more information on seismic hazards. In addition, severe erosion associated with the highly erodible ash-rich soils is possible on slopes throughout the area, especially where the vegetation covering the soils is disturbed (Kodiak Island Borough et. al. 2006).

3.6.2 Environmental Consequences

A project could have significant adverse effects on geology and soils if the Proposed Action were to substantially increase soil erosion or the loss of topsoil in the project area or expose people or structures to substantial risk from geologic conditions, such as seismic activity.

3.6.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have minor adverse impacts on geology and soils during construction activities on Nyman Peninsula. Under the Proposed Action, any new structures constructed would meet current seismic standards. In addition to the design of structures, the Proposed Action includes shoreline stabilization measures in the area near and within the access bulkhead. The intent of the stabilization is to mitigate the effects of liquefaction landward and reduce shore displacements in a seismic event. As a result, only beneficial impacts for geology are anticipated as a result of the Proposed Action. Based on this analysis, the Proposed Action would have no significant adverse impacts on soil or geology.

The potential for adverse impacts from the disturbance of contaminated soil is discussed in Sections 3.8 and 3.12.

3.6.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. Beneficial impacts from the proposed shoreline stabilization would not occur. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No construction would occur; therefore, no increase in the potential for erosion would occur. Risk from geologic conditions would remain consistent with current levels.

3.7 BIOLOGICAL RESOURCES

3.7.1 Affected Environment

This section describes biological resources in the Proposed Action area, with special attention on federally listed, regulated, or managed species and habitats, including NOAA and USFWS trust resources. During an underwater inspection conducted in 2020, a typical community of barnacles, mussels, and other aquatic invertebrates were observed on the piles. None of these species have special protections under state or federal law, aside for the potentially present sunflower sea star which was proposed for listing under the ESA in March 2023.

3.7.1.1 Federally Protected Species and Critical Habitat

Species listed under the ESA are managed by either the USFWS or NMFS. Local representatives of these trust agencies were consulted, and online federal species mapping resources were referenced. Additionally, a formal species list was received from the USFWS (dated January 12, 2024). Information received, combined with consideration of life histories and habitats, resulted in a list of species which may be present in the project area and have the potential to be directly or indirectly affected by the Proposed Action (Table 5).

Table 5. Endangered Species Act Listed Species and Critical Habitats Potentially Occurring in the Project Area

Species				Critical Habitat	
Species Name Scientific Name	**Management Unit**	**Federal Status**	**Present in Project Area**	**Status**	**Present in Project Area**
Class: Mammalia					
Beluga Whale *Delphinapterus leucas*	Cook Inlet DPS	Endangered	Potential presence	Final designation	Yes
Blue Whale *Balaenoptera musculus*	Eastern and Central North Pacific Stocks	Endangered	Potential presence	None proposed	N/A
Fin Whale *Balaenoptera physalus*	--	Endangered	Potential presence	None proposed	N/A
Gray Whale *Eschrichtius robustus*	Western North Pacific DPS	Endangered	Potential presence	None proposed	N/A
Humpback Whale *Megaptera novaeangliae*	Western North Pacific DPS	Endangered	Presence documented	Final designation	Yes
	Mexico DPS	Threatened			
North Pacific Right Whale *Eubalaena japonica*	--	Endangered	Potential presence	None proposed	N/A
Sei Whale *Balaenoptera borealis*	Eastern North Pacific Stock	Endangered	Potential presence	None proposed	N/A
Sperm Whale *Physeter macrocephalus*	North Pacific Stock	Endangered	Not likely	None proposed	N/A
Steller Sea Lion *Eumetopias jubatus*	Western DPS	Endangered	Presence documented	Final designation	Yes
Northern Sea Otter *Enhydra lutris kenyoni*	Southwest Alaska DPS	Threatened	Presence documented	Final designation	Yes
Class: Aves					
Steller's Eider *Polysticta stelleri*	Alaska Breeding Population	Threatened	Presence documented/ wintering	Final designation	No
Class: Asteroidea					
Sunflower Sea Star *Pycnopodia helianthoides*	Species level	Proposed Threatened[1]	Presence documented	None proposed	N/A

Notes:
[1]Sunflower sea stars were proposed for listing as a threatened species under the ESA on 16 March 2023 (88 FR 16212). A Final Rule had not been published at the time this document was prepared.
DPS — distinct population segment
N/A — not applicable

The USFWS species list also included the short-tailed albatross. The albatross is unlikely to be found in Inner Womens Bay based on lack of observation, location of breeding areas, and feeding behaviors and habitat. The closest report of a short-tailed albatross was at Humpback Rock, approximately 10 mi (16.1 km) offshore from the cargo wharf (eBird 2022). The albatross will not be discussed further in this EA.

A variety of marine mammals are known to occur in the nearshore and pelagic (i.e., open water) marine habitats surrounding Nyman Peninsula and in Chiniak Bay, but the relatively shallow water immediately adjacent to the project area likely prevents use of the area by larger marine mammals, such as whales.

3.7.1.1.1 Beluga Whale

The Cook Inlet DPS of beluga whales has been listed as endangered since 2008 (NMFS 2008a). Beluga whales are unique among the other evaluated whale species for their high use of shallow waters, particularly during summer months. The Cook Inlet DPS specifically is located in a unique "incised glacial fjord" that "experiences large tidal exchanges and is a true estuary" (NMFS 2008a). The Cook Inlet belugas are confined to Cook Inlet waters year-round, lacking the seasonal migration patterns characteristic of other belugas (NMFS 2008a). One of the potential vessel transit routes passes through Cook Inlet.

Final designation of critical habitat for the Cook Inlet DPS went into effect May 11, 2011, and includes marine and estuarine areas within Cook Inlet (NMFS 2011).

3.7.1.1.2 Blue Whale

The blue whale (*Balaenoptera musculus*) has been listed as endangered throughout its range since 1970 (Bureau of Sport Fisheries and Wildlife 1970). The Central North Pacific stock of blue whales feed primarily on krill in summer south of and along the western Aleutians and in the Gulf of Alaska, and migrate to warmer waters in the winter (NMFS 2018a). According to NMFS' Species Distribution Mapper (2022d), their range encompasses GOA waters of the Aleutian Trench, and then cuts across the Aleutian Islands on the west side of Akutan Island. They are present in Alaska waters for summer foraging, and then migrate to waters off of Mexico and Central America during the winter (NMFS 2022a). An ADF&G description of wildlife viewing opportunities along the Marmot Bay ferry route reports that blue whale sightings are possible, but very rare (ADF&G, *no date*). That ferry route partially overlaps one or more of the potential vessel transit routes that may be selected by a contractor.

Critical habitat has not been proposed or designated for the blue whale.

3.7.1.1.3 Fin Whale

Considered a cosmopolitan cetacean, fin whales can be found worldwide in polar, temperate, and subtropical waters (Perrin et al. 2008). In the Alaska region, fin whales are found primarily in the western Chukchi Sea, the Bering Sea, and throughout the GOA (ADF&G 2008). In general, fin whales are considered a migratory species, spending spring and early summer in cold waters in high latitudes, migrating to low latitudes in the fall, with some remaining in higher latitudes year-round if food is abundant (ADF&G 2008). Aerial surveys conducted between 1999 and 2005 for Sea Grant Gulf Apex Predator-Prey Project documented fin whale observations around the Kodiak

Archipelago, with the highest concentrations observed in the summer months of June through September (Sea Grant Alaska 2012). Fin whales are generally found in open waters away from coastlines and bays and, therefore, will not be impacted by Project-related in-water actions that will be confined to Inner Womens Bay. However, they may be present in the transit zone of the project area.

Critical habitat has not been proposed or designated for fin whale.

3.7.1.1.4 Gray Whale

Two distinct populations of gray whale migrate to the north Pacific region - the Eastern North Pacific DPS (delisted) and the Western North Pacific DPS (Endangered) (NMFS 2014). The Eastern North Pacific DPS is more likely to be found near Kodiak Archipelago; however, there is still a small probability that individuals from the endangered Western North Pacific DPS could occasionally stray into the area during the winter migratory period (NMFS 2014). Neither an ADF&G Wildlife Viewing Guide (ADF&G 2019) nor the Womens Bay Comprehensive Plan Update (Kodiak Island Borough at al. 2006) identifies Womens Bay as a whale-watching destination and the aerial surveys conducted between 1999 and 2005 for Sea Grant Gulf Apex Predator-Prey Project indicate that gray whales are primarily seen near Ugak Bay which is several miles south of the project area (Sea Grant Alaska 2012). Impacts to gray whales in Inner Womens Bay are not likely due to the unlikelihood of whales seen in the area being the listed Western North Pacific DPS, and the limited observations of gray whales near the project area. However, they may be present in the transit zone of the project area.

Critical habitat has not been proposed or designated for the gray whale.

3.7.1.1.5 Humpback Whale

Humpback whales are large whales that migrate long distances from their southern winter breeding grounds to feeding grounds in the Northern Hemisphere. Three distinct population segments (DPSs) are known to use the GOA for foraging: the Mexico DPS, listed as threatened under the ESA, and the Western North Pacific DPS, listed as endangered under the ESA, and the Hawaii DPS which is not listed under the ESA. Aerial surveys conducted between 1999 and 2005 for Sea Grant Gulf Apex Predator-Prey Project and the *Summer Distribution and Habitat Characteristics of Balaenopterid Whales in Steller Sea Lion Critical Habitat, Northeast Kodiak Island* study indicate that humpback whales are found all along the eastern coast of the Kodiak Archipelago, including areas just outside of Womens Bay in Chiniak Bay. The highest concentrations are found near Ugak Bay with numbers peaking in August (Baraff et al 2005; Sea Grant Alaska 2012).

Humpback whales typically feed on euphausiids and small schooling fishes, such as juvenile walleye pollock, capelin, and Pacific sand lance, in shallow, cold, productive coastal Alaskan waters during the summer months. Unlike many other species of whale, humpback whales often feed in shallower waters closer to the coastline (NMFS 2022c). Four seasonal feeding biologically important areas (BIAs) were delineated by Ferguson et al. (2015) for humpback whales in the GOA. One of these BIAs encompasses waters around Kodiak Island, including the waters of Chiniak Bay in or near the project area.

Humpback whales are routinely observed near the Barren Islands between the north end of Kodiak Island and Homer (Alaska Department of Fish and Game [ADF&G] 2022). Based on the habits of humpback whales and the confirmation of sightings in the general vicinity of Womens Bay, occurrences of humpback whale within or near the project area are likely. They may also be present in the transit zone of the project area.

The project area is located within ESA-designated critical habitat for the Western North Pacific and Mexico DPS of humpback whales. The critical habitat overlapping the project area, as with all designated humpback whale critical habitat, serves as feeding habitat and contains the essential biological feature of humpback whale prey. Final designation of critical habitat for the Mexico and Western North Pacific DPS was issued on May 21, 2021, and includes a nearshore boundary at the 3.3-ft (1-m) isobath relative to the MLLW and includes the waters around Kodiak Island extending approximately 70 mi (112.7 km) from the project site (NMFS 2021a).

3.7.1.1.6 North Pacific Right Whale

The endangered North Pacific right whale is a stocky baleen whale found primarily in the central North Pacific and Bering Sea (NMFS 2021b). Migration patterns of North Pacific right whales are not well known; however, it is presumed that they, similar to other whales, spend the summer months in productive northern waters, migrating south to warmer waters in the winter (NMFS 2019c). Based on the known habits of the North Pacific right whale, it is unlikely that any individuals will occur within the project area. However, they may be present in the transit zone of the project area

Critical habitat was designated for the North Pacific right whale on April 8, 2008, the closest of which is located approximately 40 miles south of the project (NMFS 2008b).

3.7.1.1.7 Sei Whale

The sei whale (*Balaenoptera borealis*) has been listed as endangered throughout its range since 1970 (Bureau of Sport Fisheries and Wildlife 1970). According to NMFS' Species Distribution Mapper (2022d), their Alaska range encompasses the deep GOA waters of the Aleutian Trench. Little is known about the movement patterns of sei whales, which can be found around the world in the oceans of the mid-latitudes and typically in deep, offshore waters (NMFS 2022f). A survey in 2019 recorded 20 sei whale observations in the Gulf of Alaska between July and September (NMFS 2021c). An ADF&G description of wildlife viewing opportunities along the Marmot Bay ferry route reports that "Sei whales are most plentiful in early May or June and migrate south starting in August" (ADF&G, *no date*). That ferry route partially overlaps one or more of the potential vessel transit routes that may be selected by a contractor.

Critical habitat has not been proposed or designated for the sei whale.

3.7.1.1.8 Sperm Whale

The endangered sperm whale is the largest of the toothed whales with one of the broadest distributions, including all deep oceans (NMFS 2022d). Sperm whales feed in deep waters, routinely diving greater than 2,000 ft (609.6 m) to hunt, and "As a result of their deep-sea behaviors, sperm whales typically live in waters of several thousand meters deep and are rarely seen along the coast except in areas where deep trenches or underwater canyons approach the

shore" (Oceana 2022; NMFS 2022d). However, as noted in USCG's *Letter of Authorization Application for Programmatic Maintenance, Repair, and Replacement Activities April 1, 2022, to March 31, 2027* (Wood Environment & Infrastructure Solutions, Inc. 2021):

> "While sperm whales are typically offshore, pelagic species, in the past 30 years there have been changes regarding sperm whales in the GOA and Southeast Alaska's Inside Passage. Sightings of sperm whales have become far more common, particularly by longliners fishing the GOA, where sperm whales have learned to take fish from longlines during fishing operations. Another change is an apparent increase in presence in the Inside waters, specifically in Chatham where a few individuals probably followed a longliner in and figured out that there are sablefish in there, as well as squid. In the fall of 2018 and spring of 2019, three sperm whales were seen repeatedly in the Inside waters of Chatham Strait and Lynn Canal, and in March 2019 a dead sperm whale washed up north of Berners Bay between Juneau and Haines (ADF&G 2020). Given this greater rate of observation within the nearshore waters of the Inside Passage, sperm whales are considered to have a low potential to appear at any of the Southeastern Alaska USCG facilities including Sitka, Juneau, Petersburg, and Ketchikan in addition to Base Kodiak."

Critical habitat has not been proposed or designated for the sperm whale.

3.7.1.1.9 Steller Sea Lions

Steller sea lions are present in Kodiak Harbor but are seen infrequently in Womens Bay, including the project area. According to NMFS, "[Western] DPS Steller sea lions frequently occur in Kodiak Harbor. Many individual sea lions have become habituated to human activity in the Kodiak harbor/port area" (2015). Most of this activity is associated with fishing vessels and seafood processing facilities. The Proposed Action area in Womens Bay only contains vessels associated with USCG, commercial container operations on the northwest side of Inner Womens Bay, and recreational fisheries; the upland areas are occupied by USCG's airfield and related facilities. These uses are unlikely to attract sea lions. However, the Comprehensive Plan for the Womens Bay community notes that sea lions inhabit the bay (Kodiak Island Borough et al. 2006). Other sources indicate that Womens Bay is very productive, which suggests that sea lion prey (primarily fishes and cephalopods) may be abundant in the project area (Ryer and Copeman 2012; Long et al. 2012).

NMFS designated critical habitat for the Steller sea lion on August 27, 1993, citing the physical and biological habitat features supporting reproduction, foraging, rest, and refuge, including terrestrial, air, and aquatic zones (58 Federal Register [FR] 45269). The Steller sea lion critical habitat in western Alaska includes a 20-nm (37-km) buffer around all major haulouts and rookeries as well as associated terrestrial, air, and aquatic zones and three large offshore foraging areas (Shelikof Strait, Bogoslof, and Seguam Pass). The 20-nm (37-km) buffers of two designated critical habitat haulouts encompass the project area (i.e., those located at Long Island and Cape Chiniak), with the haulouts located approximately 4 nm (7.4 km) and 13 nm (24.1 km) away, respectively. The 20-nm (37-km) critical habitat radii around haulouts and rookeries serve to minimize disturbance around these important areas and also to provide an adequate food supply close to rookeries for lactating females, who alternate between foraging at sea and nursing their pups on land. An artificial haulout that is not part of the species' critical habitat designation and is not considered a major haulout is also located in Dog Bay, nearly 5 mi (8.04 km) to the northeast

(or approximately 7 mi [11.3 km] by water). This haulout is an old section of a floating breakwater (NMFS 2015).

3.7.1.1.10 Northern Sea Otter

The Southwest Alaska DPS of the Northern sea otter was listed as threatened on August 9, 2005 (USFWS 2005). The sea otter is a marine mammal that eats clams, crabs, sea urchins, snails, octopus, and occasionally fish and birds, resources that are found in abundance around Kodiak Island, including within Womens Bay. Sea otters dive for clams and other food in waters less than 65.6 ft (20 m) deep (USFWS 2005). The population of sea otters around Kodiak Island decreased approximately 56 percent between 1989 and 2001 (Degange et al. 1995); however, since 2001, sea otter abundance has increased in the area (Cobb et al. 2018). Increased predation from killer whales is thought to be the cause of the overall decline. Threats to the sea otter include increased competition for shellfish, oil and gas transport, logging in coastal areas, and commercial fishing (USFWS 2023).

Aerial surveys conducted in 2014 estimated a total of 13,274 sea otters inhabiting the waters around the Kodiak Archipelago, with group sizes of 68 to 159 observed in Womens Bay (Cobb 2018). USCG has conducted several in-water projects in Inner Womens Bay that required marine mammal monitoring, including a repair project at the cargo wharf. Monitoring demonstrated that sea otters found in Inner Womens Bay appear to be habituated to construction activities and noises. Otters were often seen coming into the exclusion zone to forage without appearing to be impacted. This occurred often enough that the impact zone was significantly decreased, with authorization from USFWS, to allow for work to continue.

The Proposed Action is within designated critical habitat for the sea otter, specifically Unit 5: Kodiak, Kamishak, Alaska Peninsula Unit. This unit includes all marine waters around Kodiak Island less than 20 meters deep. Sea otters currently occupy Unit 5 (74 FR 51988). While the waters and substrate of Inner Womens Bay may be critical habitat, the critical habitat designation specifically excludes “developed areas, such as piers, docks, harbors, marinas, jetties, and breakwaters.” Therefore, the existing cargo wharf structure is not considered to be critical habitat.

Along with critical habitats, the USFWS identified Primary Constituent Elements (PCEs), which are the essential physical and biological features of sea otter habitat (74 FR 51988). The PCEs for sea otters include the following:

- Shallow rocky waters less than 6.6 ft (2 m) deep, where marine predators are less likely to forage.
- Nearshore waters within 328.1 ft (100 m) of the mean HTL; these waters may provide protection or escape from marine predators.
- Waters less than 65.6 ft (20 m) deep; these waters provide kelp forests that allow sea otters to hide from marine predators.
- Prey resources (clams and other food) with the above PCE areas present in sufficient quantity and quality to support sea otters.

Although no data are available for kelp coverage in the project area, it is assumed that kelp may be present based on experimental marine habitat mapping by NOAA which showed bottom cover of kelp in the area ranges from 0 percent (bare substrates) to 100 percent. Kelp within the project area is likely to be more limited due to local ship traffic intensity.

3.7.1.1.11 Steller's Eider

The Steller's eider, a small diving duck that eats clams buried in the substrate, is listed as threatened under the ESA. Although it is found in Alaska and Russia, only the Alaska breeding population is listed (USFWS 2002). The Proposed Action is not within USFWS-designated critical habitat for the Steller's eider (USFWS 2001); however, as a listed species, the Steller's eider is protected regardless of whether or not it occurs inside any critical habitat.

The Steller's eider is only present on Kodiak Island during the non-breeding wintering period (late September to April, during its wintering and molting time), associated with shallow waters (less than 30 ft [9.1 m] deep) (USFWS 2002). According to telemetry studies conducted by the ADF&G (Rosenberg et al. 2016), eiders arrive in Womens Bay starting in November and leave Womens Bay by the middle to end of April. Many sightings in Womens Bay or from Nyman Peninsula have been reported on eBird between mid-November through April, with one report as late as May in 1986 (eBird 2022). The USFWS has mapped the area around Womens Bay, including Nyman Peninsula, as known winter and molting habitat Area 10. This area contains an estimated 126 to 1,000 Steller's eiders (66 FR 8850). Studies have shown that Steller's eiders have a strong fidelity to wintering grounds and return to the same location for multiple years (Fredrickson 2001). Eiders migrate to the North Slope of Alaska for breeding during the summer (USFWS 2002). Threats to the Steller's eiders include lead poisoning from eating lead shot, marine shipping, and commercial fishing. Marine shipping and commercial fishing can disturb Steller's eider feeding and create a risk of fuel spills.

3.7.1.1.12 Sunflower Sea Star

The sunflower sea star (*Pycnopodia helianthoides*) is a sea star found in coastal marine waters and is distinctive because it has many rays, resembling a sunflower (Lowry et al. 2022). On 16 March 2023, NMFS issued a proposed rule to list the sunflower sea star as a threatened species under the ESA after a steep decline in population estimates theoretically caused by the onset of sea star wasting syndrome (88 FR 16212; Hamilton et al. 2021).

The sunflower sea star is among the largest known sea stars and can reach up to one meter in diameter. Sunflower sea stars are considered habitat generalists and are well adapted for a variety of habitat types; although they are well known to inhabit kelp forests rocky intertidal shoals, and eelgrass meadows (Hodin et al. 2021; Dean and Jewett; Gravem et al. 2021). They also prefer a variety of seafloor substrates in depths of up to 1,427 ft (435 m), but they more commonly inhabit depths of less than 82 ft (25 m). The species is a voracious predator, feeding on epibenthic invertebrates, including sea urchins, snails, crabs, sea cucumbers, and other sea stars (Mauzey et al. 1968; Shivji et al. 1983).

The species ranges across the Northeastern Pacific Ocean, from the Aleutian Islands in the west to Baja California in the east but is more common between the Alaska Peninsula to Monterey, California. Konar et al. (2019) monitored intertidal populations in the GOA beginning in 2012 and

described sunflower sea stars as "common" toward the northwest part of its range in the Katmai National Park and Preserve near Kodiak Island, prior to the 2016 wasting outbreak (Konar et al. 2019).

Though the species has experienced declines in population since 2016, they may be present year-round within the project area during the USCG Project.

3.7.1.2 Essential Fish Habitat

As noted in Section 2.4.2, the NPFMC has designated EFH for two fisheries that include the Proposed Action area: GOA groundfish and salmon (NPFMC 2020 and 2021).

3.7.1.2.1 Groundfish

The groundfish FMP includes fisheries for all stocks of finfish (except for salmon, steelhead, Pacific halibut, Pacific herring, and tuna) in the GOA, extending the width of the EEZ in the North Pacific Ocean, exclusive of the Bering Sea, between the eastern Aleutian Islands at 170E W. longitude and Dixon Entrance at 132E40' W. longitude (NPFMC 2020). The FMP addresses 27 specific species (e.g., Pacific cod, Alaska plaice, and flathead sole) or groups of species (e.g., skates, squids, sculpins, and octopus). To the extent that information is available, the GOA Groundfish FMP describes the following life stages for each covered species: eggs, larvae, early juveniles, late juveniles, and adults. Based on a review of NMFS' EFH Mapper (NMFS 2022e), many of the identified groundfish (almost all the 40 mapped species or species groups) have EFH for one or more life stages south of the tip of Nyman Peninsula, more than 3,000 ft from the Proposed Action. However, Inner Womens Bay from the tip of the Nyman Peninsula north to the USCG Air Station, including areas directly surrounding the cargo wharf, is not mapped as an EFH for those species included in the EFH Mapper (NMFS 2022e).

3.7.1.2.2 Salmon

The salmon FMP includes five salmonid species: pink salmon, chum salmon, coho salmon, Chinook salmon, and sockeye salmon. EFH includes those "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (NPFMC 2021). The salmon FMP describes EFH for all five salmonid species for the following life stages: freshwater eggs and larvae, freshwater juveniles, estuarine juveniles, marine juveniles, marine immature and maturing adults, and freshwater adults (NPFMC 2021). Based on a review of NMFS' EFH Mapper (NMFS 2022e), Inner Womens Bay and the Proposed Action site have mapped salmon EFH for all the designated salmon. Salmon within Inner Womens Bay near the Proposed Action site could be either marine juveniles (smolts) that have recently transitioned from freshwater streams into estuarine and marine habitats or immature or maturing adults.

3.7.1.3 Other Marine Mammals

MMPA of 1972 prohibits the taking of marine mammals. In the context of this act, the term "take" means to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal (NOAA 2009a). A variety of marine mammals are known to occur in the nearshore and pelagic (i.e., open water) marine habitats surrounding Nyman Peninsula and in Chiniak Bay, but the relatively shallow water immediately adjacent to the Proposed Action area likely prevents use of the area by larger marine mammals, such as whales.

In addition to the listed marine mammals discussed in Section 3.7.1.1, the following marine mammals have the potential to occur in the immediate vicinity of the Proposed Action area based on previous surveys and available habitat:

- Harbor Seal (*Phoca vitulina*)
- Northern Fur Seal (*Callorhinus ursinus*)
- Dall's Porpoise (*Phocoenoides dalli*)
- Harbor Porpoise (*Phocoena phocoena*)
- Pacific White Sided Dolphin (*Lagenorhynchus obliquidens*)
- Cuvier's Beaked Whale (*Ziphius cavirostris*)
- Killer Whale (*Orcinus orca*)
- Minke Whale (*Balaenoptera acutorostrata*)

Of these species, harbor seal is the most likely to be observed in Inner Womens Bay based on habitat preferences and was specifically mentioned in the Womens Bay Comprehensive Plan as an "occasional" visitor along with sea otters and sea lions (Kodiak Island Borough et al. 2006). The remaining species are typically found in deeper offshore waters; no reports of their presence in Inner Womens Bay have been located.

3.7.1.4 Migratory Birds

MBTA of 1918 is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to the United States and at least one of the other four countries (i.e., species occur in the United States and at least one of the other countries at some point during their annual life cycle). The act protects all migratory birds and their parts (including eggs, nests, and feathers). EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, directs federal agencies to take certain actions to further implement MBTA and to conserve migratory birds. The order prohibits the take of migratory birds or their eggs, feathers, or nests. Many waterfowl, songbirds, raptors, and other species are migratory and are protected under MBTA. Chiniak Bay supports at least 23 seabird colonies during the summer; however, none of these colonies are located within or adjacent to the Proposed Action area. The following migratory birds have a higher potential to occur in the Proposed Action area (USFWS 2024):

- Aleutian tern (*Sterna aleutica*)
- American golden-plover (*Pluvialis dominica*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Black oystercatcher (*Haematopus bachmani*)
- Black scoter (*Melanitta nigra*)
- Black turnstone (*Arenaria melanocephala*)
- Black-legged kittiwake (*Rissa tridactyla*)
- Common eider (*Somateria mollissima*)
- Common loon (G*avia immer*)
- Common murre (*Uria aalge*)
- Dunlin (*Calidris alpine arcticola*)
- Golden eagle (*Aquila chrysaetos*)
- Hudsonian godwit (*Limosa haemastica*)

- Kittlitz's murrelet (*Brachyramphus brevirostris*)
- Long-tailed duck (*Clangula hyemalis*)
- Marbled godwit (*Limosa fedoa*)
- Olive-sided flycatcher (*Contopus cooperi*)
- Pomarine jaeger (*Stercorarius pomarinus*)
- Red-breasted merganser (*Mergus serrator*)
- Red-necked phalarope (*Phalaropus lobatus*)
- Red-throated loon (*Gavia stellata*)
- Ring-billed gull (*Larus delawarenisis*)
- Short-billed dowitcher (*Limnodromus griseus*)
- Surf scoter (*Melanitta perspicillata*)
- Thick-billed murre (*Uria lomvia*)
- White-winged scoter (*Melanitta fusca*)
- Yellow-billed loon (*Gavia adamsii*)

The industrial nature of the project area provides limited habitat suitable for roosting and nesting of birds. Adjacent vegetated shorelines may provide suitable nesting habitat for migratory songbirds not listed above.

3.7.1.5 Other NMFS Trust Resources

NMFS trust resources are resources associated with coastal, marine, and Great Lakes habitats, including rivers and estuaries. NOAA trust resources include commercial and recreational fishery resources; anadromous and catadromous species (species that migrate between fresh water and the sea); marine mammals; endangered and threatened marine species and their habitats; marshes, mangroves, seagrass beds, coral reefs, and other coastal habitats; and resources associated with National Marine Sanctuaries and National Estuarine Research Reserves. These resources are addressed in Sections 3.7.1.1 through 3.7.1.3.

In addition, NMFS has the authority under the Fish and Wildlife Coordination Act to make recommendations to conserve GOA crab, which do not have established EFH but are nevertheless important NMFS trust resources. In the Proposed Action area, these species include red king crab (*Paralithodes camtschaticus*) and Tanner crab (*Chionoecetes bairdi*). The closest designated EFH for king crabs and Tanner crabs is in the Aleutian Islands and Bering Sea.

3.7.1.5.1 Red King Crab

The waters around Kodiak Island were once the world's largest red king crab fishery, with harvest peaking in 1965, followed by a population drop and stabilization, then culminating in a final collapse in the early 1980s (Bechtol and Kruse 2009). Continued low abundance has kept the Kodiak red king crab closed to commercial fishing since 1983. Bechtol and Kruse's study attributes the collapse at least partially to overharvest by sheer numbers and preferential selection of male crabs through the resulting changes in the male-to-female ratio in the remaining population and to possible climate changes that may have increased predation by cod.

A report by NMFS (Dew 1991) examined habitat preferences of juvenile red king crab in three bays of Kodiak Island, including Inner Womens Bay. Marginal wharf, approximately 2,000 ft (609.6 m) southwest of the cargo wharf, was one of the study sites in Inner Womens Bay. Of the

three bays, Inner Womens Bay had the highest density of age 0 to 1 and age 2 to 4 crabs, and marginal wharf had the most preferred habitat of three types examined in Inner Womens Bay (Dew 1991). Historically, marginal wharf and other piers in Inner Womens Bay have been used by 1- to 2-year-old red king crabs, which aggregate on piles in large groups called pods. The pods were typically found on piles, between 6 and 12 ft from the bottom. The data indicate that the vertical structure is an important component of habitat for age 1 to 2 crabs as part of predator avoidance; age 0 crabs are able to shelter from predators in the "interstices of the broken-shell and debris-strewn bottom" or tucked amongst sea stars and so do not need to expend the energy moving up and down piles (Dew 1991). Of individual, age 1 to 2 crabs (not in pods) observed at the marginal wharf, 56 percent were on piles, 37 percent were on the bottom, and 7 percent were on other man-made debris (Dew 1991).

A study of podding behaviors in Inner Womens Bay (Dew 1990) also indicates that other structures and debris, such as a light hood that had fallen from marginal wharf, have been used by podding crabs (approximately 600 crabs for 10 consecutive days). One of the two pods that was studied for 78 consecutive days spent 28 of those days below marginal wharf and 35 days in the Nyman Peninsula habitat, whose only vertical structure other than kelp and other macrophytes, was cobble (Dew 1990).

Dew's studies were completed almost 30 years ago. According to Dr. Chris Long, a Research Ecologist/Research Fishery Biologist at NOAA's Kodiak Alaska Fishery Science Center, dive studies have continued to be conducted at marginal wharf although the data have not been published. He noted that the Kodiak region now has only a "remnant population" of red king crab and that there have been no indications of a population increase. Crab observations at marginal wharf were "remarkably few" about 11 years ago (Long, January 16, 2020, personal communication). He stated that the crab could still be found at marginal wharf 5 to 7 years ago, but not in the same numbers as previous years (Long, January 16, 2020, personal communication). Studies have not been conducted at the cargo wharf, but Dr. Long suspects the use of cargo wharf piles may be similar to that of marginal wharf piles (Long, January 16, 2020, personal communication).

3.7.1.5.2 Tanner Crab

Tanner crab have an active commercial fishery on Kodiak Island. Similar to the red king crab, Tanner crabs experienced a decline in the 1980s, and the Kodiak fishery was closed in 1995. The fishery was reopened in 2000 provided that certain criteria are met each year (Stichert 2012). The depths at which they are found are highly variable, with some association between age and sex. Juveniles tend to be in shallower waters (50 to 165 meters), and all ages are associated with sand, mud, or shell bottoms with low densities in habitats with debris. Female adults are known to partially bury themselves in these substrates, and adult males and juveniles are also suspected of burying (Krause et al. 2001). None of the studies showed an association with structures, e.g., piles. The study by Dew in 1991 was not focused on the Tanner crab, but it mentions that the "mid-bay habitat" of Inner Womens Bay was "characterized by silt, brown algal mat, tanner crab…" and also indicated Tanner crab are present at nearby marginal wharf. Dr. Long confirmed Tanner crab use of the marginal wharf area was limited to the substrate (Long, January 16, 2020, personal communication) and noted that they are also found along the northeast shoreline of the bay, particularly in winter and early spring (Long, January 16, 2020, personal communication).

3.7.2 Environmental Consequences

Effects on biological resources would be considered significant if Proposed Action activities were to result in the loss of sensitive or protected habitat or in the direct loss or damage of any sensitive resource which would cause detrimental effects on the protected resource population. Effects would also be considered significant if the action were to violate ESA, MMPA, Fish and Wildlife Coordination Act, MSA, CWA, MBTA, or other federal, state, or local laws protecting biological resources.

3.7.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

3.7.2.1.1 *Marine Mammals and Marine Mammal Habitat*

The Proposed Action would have the potential to impact some federally protected species as well as ESA-designated critical habitat. The BMPs described previously, and those developed through future consultation, will ensure that the Proposed Action avoids significant impacts on federally protected species or designated critical habitat or reduces impacts to less than significant levels.

3.7.2.1.1.1 Marine Mammals

The Proposed Action would have less-than-significant impacts on ESA-listed and non-listed marine mammals present in or near the project area.

Potential effects of the Proposed Action on marine mammals would be expected to result primarily from sounds produced during pile driving. Pile driving is a source of high amplitude, low frequency sound, which occurs in predominantly shallow coastal waters where local conditions can have a substantial effect on how the sound travels (Robinson et al. 2007). Noise levels produced from this activity depend upon pile size, hammer strike energy, and the substrate into which the pile is being driven (Todd et al. 2015). The degree of effect these noise levels would have on marine mammals is related to the received level and duration of sound exposure, which would be substantially influenced by the distance between the animal and source of the noise. Thus, at increasing distance from the source of sound, the intensity of sound attenuates significantly. Variables such as the type of substrate and depth of water also affect sound propagation properties. Shallow, structurally complex environments can attenuate sound rapidly. Similarly, soft substrates, such as sand or mud, will absorb or dampen sound more rapidly than hard substrates such as rock.

Potential impacts from impulse sound exposure can range from harassment such as behavioral disturbance, temporary physiological disturbance such as temporary threshold shift (TTS), disturbance to tactile perception, and physical discomfort to injurious exposure which could cause harm to the auditory system, PTS and potentially death (U.S. Navy 2015). Accumulated noise doses over an extended period can also result in permanent auditory system impairment. The most likely effect on marine mammals occurring in the project area during pile driving, rock socket drilling, and removal activities is temporary and localized disruption of behavior from incidental harassment.

Marine mammals are known to alter behaviors in response to anthropogenic noise. These altered behaviors include reduction in feeding, leaving quality habitat, reduction in vocalizations, active

avoidance of areas with the highest sound levels, and subtle changes in surfacing and breathing patterns, including shorter dives and longer surface intervals (National Research Council 2003). Research has shown sound avoidance in marine mammals can be situational and variable, with effects ranging from temporary interruptions of behavior to longer-term behavioral responses, depending on the species, behavioral state, tolerance levels, social status, and age of the individual as well as the location, and the frequency and sound intensity (Richardson et al. 1995).

Factors affecting an animal's individual response may include previous exposures or experience, auditory sensitivity, age, sex, and the particular behavior the animal is engaged in at the time of exposure. In the event pile driving results in disruption of whale behaviors, the temporary and relatively short duration of pile driving activities would allow typical behaviors to resume quickly and are not expected to result in significant effects on survival or reproduction of any marine mammal species. Although temporary displacement or avoidance may occur, disruption to important behavioral patterns such as migration, breathing, nursing, feeding, or sheltering is expected to be minimal given the temporary nature of the activities and the project area location.

Sounds introduced into the marine environment, depending on received sound levels, could result in tissue responses such as mechanical vibration or compression. Such tissue responses may or may not result in injury. Hearing threshold shifts may occur, which could be either temporary or permanent. Temporary threshold shift (TTS) has occurred from sound levels as low as 153 dB (cumulative SEL) for high-frequency cetaceans (NMFS 2018b). TTS represents primarily tissue fatigue and is reversible (Southall et al. 2007). NMFS does not consider TTS to constitute physical injury (NOAA 2023), because it is within the normal bounds of physiological variability and tolerance (Ward 1997). PTS is a moderate injury resulting in partial hearing loss. PTS can be caused by very loud received sound levels or by prolonged exposure to loud sounds. In combination with proposed mitigation measures, in particular the ability to place PSOs at the tip of Nyman Peninsula to identify marine mammals before they enter Level A ensonification zones within inner Womens Bay and become exposed to project sound, PTS in marine mammals is not anticipated as a result of pile driving or rock socket drilling for the Proposed Action.

A PSO will be monitoring exclusion and safety zones and implementing mitigation measures when appropriate in accordance with USCG's Marine Mammal Monitoring and Mitigation Plan (4MP) being developed for submittal with the MMPA Incidental Harassment Authorization (IHA) request and petition for Incidental Take Regulation (ITR). Given BMPs provided in Section 2.3.3.4, typical marine mammal monitoring and mitigation measures developed with NMFS and USFWS during the process for issuance of an IHA and ITR, and those prescribed as a result of ESA Section 7 consultation, any effects greater than those resulting from behavioral harassment are not expected. Any temporary disturbance effects would be limited to individual marine mammals and are not anticipated to have significant stock level or population level effects.

Marine Mammal Prey

The prey base for pinniped species includes a wide variety of fish species and crustaceans. Whale species known to be present in or near the project area primarily feed on fish, small crustaceans, or other invertebrates. Sea otters primarily feed on benthic invertebrates. The project area provides habitat for many important marine mammal prey species.

Positioning and anchoring construction barges, pile removal and installation, and placement of fill would result in temporary and permanent disturbances to fish and benthic species habitats. These activities would disturb sediment, increase turbidity, disturb and reduce benthic habitats, and potentially disturb or harm fish within the project area.

Increased turbidity could disperse prey fish from the area and make it difficult for predators to locate prey. Disturbed sediment would settle soon after work is completed and would be localized to the immediate area around piles. During construction, foraging and refuge habitat quality for prey species would be temporarily degraded over localized areas.

BMPs presented in Section 2.3.3 will minimize impacts on marine mammal prey species populations. The Proposed Action is not expected to have measurable effects on the distribution or abundance of marine mammal prey species, because any adverse effects on prey species would be localized and short term. The number of affected individual prey of any species would be incrementally small in comparison to the vast prey habitat available to marine mammals in the waters surrounding the project area. No significant effects on marine mammal prey are anticipated as a result of the Proposed Action.

Marine Mammal Habitat and ESA-Designated Critical Habitat

Marine mammal habitat, including ESA-designated critical habitat for humpback whales, Steller sea lions, and northern sea otters overlaps with the proposed project area. Critical habitat for marine mammals is determined and designated based on physical or biological features essential to conservation of the species, typically important areas for prey or physical features such as areas to escape from predators or for caring for young.

For reasons presented previously, significant impacts on marine mammal prey are not anticipated as a result of the Proposed Action. No significant loss of habitat would occur as a result of the Proposed Action. The Proposed Action is not expected to have measurable effects on the distribution or abundance of marine mammal prey species, because any adverse effects on prey would be localized and short term. The number of affected individual prey of any species would be incrementally small in comparison to the extent of critical habitat available to marine mammals in the waters surrounding the project area.

Physical features of the two major Steller sea lion haulout and rookeries important for supporting reproduction, foraging, rest, and refuge are located approximately 4 nm and 13 nm, respectively from the proposed project area. Any impacts from the proposed action would have minimal to no effect on the physical features essential to Steller sea lion critical habitat, and no loss of habitat would occur. Physical features essential to ESA-designated critical habitat for Northern sea otters are based on its ability to provide protection or escape from marine predators. The location of the project area is likely to provide additional deterrence of marine predators due to the extent of industrial activity occurring daily. Additionally, the project area is small in comparison to the available nearshore or shallow rocky waters and areas providing kelp bed habitats available within the designated critical habitat surrounding the project area. For these reasons, significant impacts on physical features of marine mammal critical habitat within the project area are not anticipated as a result of the Proposed Action.

Similarly, for the reasons stated regarding ESA-designated critical habitat, marine mammal habitat for non-ESA-listed marine mammal species is not expected to be more than minimally and temporarily affected by the proposed action.

3.7.2.1.1.2 Sunflower Sea Star

Potential for direct physical harm to sunflower sea stars requires they be present in the disturbance footprints. Direct exposure of sunflower sea stars to construction activity is limited to the potential impacts from movement of in-water construction equipment, direct impacts from water blasting and sea floor disturbance, and direct impacts from pile removal or installation. Sunflower sea stars are slow-moving invertebrates and may still be present on the substrate or feeding on invertebrates attached to the piles. The contractor will employ BMPs as described in Section 2.3.3.2 to minimize the potential for mortality or other adverse disturbances. Any observations of or observed mortalities to sunflower sea stars during construction will be documented and submitted to NMFS.

The USCG Project could incrementally reduce available sunflower sea star habitat due to footprint of piles removed or installed and the permanent fill placement; however, habitat destruction or modification was not identified as posing a substantial risk to sunflower sea stars due to their wide distribution as it buffers the species against significant adverse effects of activities and events limited in spatial and temporal scale (Lowry et al. 2022). The project area is an exceedingly small area in comparison to the vast area of habitat available to the species in adjacent and nearby waters surrounding Kodiak. Critical habitat has not been proposed for sunflower sea stars, as a final rule for listing has not been published as of the date this EA was prepared.

3.7.2.1.2 Essential Fish Habitat

The Proposed Action may result in less-than-significant effects on the quality of EFH within the project area from temporary impacts on water quality and small areas of permanent alteration of aquatic habitat within Inner Womens Bay, which includes components of the GOA groundfish and salmon EFH. However, the adverse impact to water quality would be short term and BMPs presented in Section 2.3.4 will be implemented to minimize water quality-related effects on EFH until construction activities are complete and water quality conditions quickly return to normal. Local water quality would benefit in the long term from the removal of creosote- or salt-treated piles. Introduction of new in- and over-water structures would add shade, changing the growth patterns of any aquatic vegetation and altering associated invertebrate communities. Invertebrate communities occupying removed piles and the fill footprint would be lost, but replacement piles, new piles, and the new bulkhead retaining the fill would likely be quickly recolonized.

The Biological Assessment being prepared in support of ESA Section 7 consultation with NMFS will also include a discussion of EFH for concurrent consultation under the MSA. Anticipated effects on EFH are not expected to be significant; any additional measures identified or required during agency consultations will be incorporated to further minimize adverse effects.

3.7.2.1.3 ESA-listed and Migratory Birds

The Steller's eider is the only ESA-listed bird species expected to be present in the project area during the Proposed Action. They are typically present on Kodiak Island during the winter months (mid-November through April) and therefore construction activities during the summer months would have no impact on Steller's eiders. Any Proposed Action activities occurring during Winter

would result in a less than significant impact on Steller's eiders. If construction activities were to occur during the winter months when eiders may be present, BMPs described in Section 2.3.3.5, and any additional measures required as a result of completed ESA Section 7 consultation, will be undertaken to minimize the risk that construction activities would result in effects on Steller's eiders.

MBTA prohibits the take of migratory birds and/or their eggs, feathers, or nests. Nesting activity on the cargo wharf is unknown; however, it could provide nesting habitat. Any migratory birds flying over the project area during construction activities would not be affected by the Proposed Action at the waterfront. BMPs presented in Section 2.3.3.6 will avoid or minimize adverse impacts on migratory birds during Proposed Action activities occurring during the spring-to-early-summer breeding season. Any effects on migratory birds as a result of the Proposed Action area are anticipated to be no more than minimal and not significant.

3.7.2.1.4 Other NOAA Trust Resources

USCG coordinated with NMFS during preparation of this EA to determine potential effects on NMFS trust resources. BMPs described in Sections 2.3.3 and 2.3.4 to protect biological resources and water quality will be implemented during construction, minimizing turbidity and the opportunity for building materials and hazardous materials such as fuel, oils, and lubricant to enter bay waters to the maximum extent practicable.

As described in Section 3.7.1.5, piles in Inner Womens Bay are a known habitat for juvenile red king crab and were preferred by age 1 to 2 crabs. However, as noted by Dr. Long, the population of red king crab in the Kodiak region in general is now a "remnant," and documented juvenile use at nearby marginal wharf, specifically, has continued to decline. The data suggest that, although piles may be preferred habitat when available, other vertical structures and debris are also used.

If juvenile red king crabs are present on the piles removed during Proposed Action construction activities, some may be harmed if they remain attached to the pile and are placed on the barge for disposal. However, the vibration of the pile and subsequent removal from the water are likely to cause the older and podding crabs to rapidly abandon the pile and seek refuge in other debris in the area (Long, July 20, 2020, personal communication). Many existing piles would be retained, and the Proposed Action would also add new piles that can be colonized by red king crabs.

The temporary loss of vertical piles and some expected juvenile crab mortality would be an adverse effect but are not considered significant based on the anticipated low numbers of crab using cargo wharf, the expected low mortality during pile removals, the retention of certain piles, and the installation of new piles that may serve as juvenile crab habitat. The nearby fuel pier has approximately 300 piles providing similar habitat.

If present, Tanner crabs may be harmed or temporarily disturbed in the substrates under and near cargo wharf during pile removal and installations. Except for permanent removal of substrate by new pile structures, the preferred soft-substrate habitat in the area would not be degraded. Considering the overall availability of preferred substrate in Inner Womens Bay, the loss of habitat is not considered significant. BMPs outlined in Section 2.3 will minimize the intensity, extent, and duration of turbidity.

3.7.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No new operations or construction would occur; therefore, no impacts would occur to ESA-listed species, EFH, other marine mammals, migratory birds, and other NMFS trust resources.

3.8 WATER RESOURCES

3.8.1 Affected Environment

3.8.1.1 Surface Water

The proposed project area is on the Nyman Peninsula, which is bordered by outer Womens Bay to the south and inner Womens Bay to the north. The northern side of Nyman Peninsula discharges stormwater into Womens Bay, and the southern side discharges into St. Paul Harbor.

The project area is within the Buskin River watershed, which includes the Buskin River and several tributaries, including Devil's Creek and Louise Creek. This watershed ultimately drains into St. Paul Harbor, just north of the Proposed Action area, and may affect local marine water quality conditions. The principal drinking water source for Base Kodiak is Buskin Lake, which is approximately 3.5 mi (5.6 km) from the Proposed Action area. The lake and treatment facility are upstream of the Proposed Action and would not be affected by any actions associated with the proposed alternatives; therefore, the lake and treatment facility are not discussed further in this EA.

Limited information is available on existing surface water quality conditions in the project area. Buskin River, St. Paul Harbor, and Womens Bay are all classified as level 3, "waters for which there is insufficient or no data and information to determine if any designated use is attained," by ADEC (2018).

Historical sources of water contaminants on Nyman Peninsula include fuel and drum storage sites. Site-specific sampling on the peninsula was undertaken by Glass (1996). Contaminants with levels greater than or equal to maximum contaminant level goals (concentration of a drinking water contaminant less than that which there is no known or expected risk to public health) included lead, benzene, chloroform, 1-2-dichloroethene, methylene chloride, and PCBs. No contaminants were found with concentrations above maximum contaminant levels (maximum allowable level of a contaminant in drinking water that is delivered to any user of a public water system). These sites have undergone or are undergoing remediation, as described in Section 3.12.

Additional potential sources of pollution that could affect water resources on Nyman Peninsula include the following:

- Activities at the Hazardous Waste Storage Building (fuels, perchloroethene, metals, and other solvents).
- Industrial activities (fuels, metals, and solvents).

- Water transportation activities (bilge water, sewage, fuels, lubricants, paints, grinding/sanding debris, and materials and wastes being loaded and unloaded from vessels).

3.8.1.2 Groundwater

The bedrock underlying the majority of Kodiak Island is composed of metamorphosed sedimentary and volcanic rocks and is almost impermeable, allowing little groundwater movement (Hogan and Nakanishi 1995). However, secondary fracturing in the bedrock in the vicinity of Base Kodiak may allow water flow (Brown 1989). Groundwater recharge in the vicinity is primarily due to precipitation infiltrating from the surface. Water elevations in wells measured in 1988 and 1989 ranged from 0.3 to 2.0 ft (0.09 to 0.61 m) below the ground surface during periods of heavy precipitation, while water levels dropped to 4.9 to 40.0 ft (1.5 to 0.2 m) below the ground surface during dry spells (Hogan and Nakanishi 1995). Groundwater on Kodiak Island travels through a number of pathways to streams, rivers, springs, and seeps and into the atmosphere. The general direction of groundwater flow is towards St. Paul Harbor to the east and toward the Buskin River to the north (Hogan and Nakanishi 1995).

Groundwater quality in the Proposed Action area can affect the quality of surface water. Glass (1996) sampled groundwater on Nyman Peninsula and detected contaminants with concentrations in exceedance of maximum contaminant level goals, including arsenic, chloroform, 1,2-dichloroethane, and methylene chloride. Several contaminants were also detected with concentrations above maximum contaminant levels, including lead, cadmium, benzene, tetrachloroethene, trichloroethene, and vinyl chloride. Groundwater contaminants (primarily heavy metals) have also been detected in monitoring wells for the former USCG landfill.

The only groundwater source that is used by Base Kodiak is for a recreational beach house, owned and operated by USCG 0.2 mi (0.32 km) north of the mouth of the Buskin River. The water supply well for the beach house is over 100 ft (30.5 m) deep.

3.8.1.3 Stormwater and Wastewater Drainage

USCG operations are subject to federal permits that regulate general stormwater runoff, runoff associated with fuel storage facilities, and effluent from the wastewater treatment plant. The area surrounding Base Kodiak is extensively developed, and drainage is directed by ditches, culverts, and storm-sewer lines. Stormwater discharge is regulated by the APDES in compliance with the CWA. The closest facilities with regulated discharges outside of Base Kodiak are more than 2 mi (3.2 km) away.

Because Base Kodiak is the largest development in the area, its activities have the largest human influence on marine water quality in the area. Base Kodiak operates under the following three APDES permits:

- An MSGP for stormwater run-off
- A permit for stormwater run-off from the bulk fuel storage facilities
- A permit for effluent from the wastewater treatment plant

Each of these permits is described in the following sections.

3.8.1.3.1 General Stormwater Run-off

General stormwater run-off from Base Kodiak is managed through an MSGP for stormwater discharges associated with industrial activities. The State of Alaska MSGP requires that an SWPPP be developed for the permitted area.

3.8.1.3.2 Bulk Fuel Facility

The State of Alaska authorized Base Kodiak to discharge treated stormwater associated with the bulk fuel facilities into Womens Bay and St. Paul Harbor through Permit AK-003142-9. The bulk petroleum fuel terminal provides marine and aviation fueling to USCGCs and aircraft. The terminal receives fuel from barges at the fuel pier. The tank farm, located within the Proposed Action area on the Nyman Peninsula, consists of aboveground storage tanks with a storage volume of 5.6 million gallons. Three outfalls are associated with these facilities: IA-3 (near Finny Beach), NP-6 (Womens Bay Inner Basin), and NP-18 (Womens Bay Outer Basin).

3.8.1.3.3 Wastewater Treatment Plant Discharge

The State of Alaska authorized Base Kodiak to discharge wastewater effluent into St. Paul Harbor through Permit AK-002064-8. Effluent is discharged via an outfall into St. Paul Harbor in a state-defined mixing zone, an area of a natural water body where pollutants from a point source discharge are mixed naturally with cleaner water. The mixing zone is tidally influenced and has no defined boundaries. The outfall is approximately 1,300 ft (396.24 m) from shore and 13 ft (4 m) below the MLLW. Discharge monitoring reports are submitted to EPA and ADEC monthly.

3.8.1.3.4 Wetlands and Waters of the United States

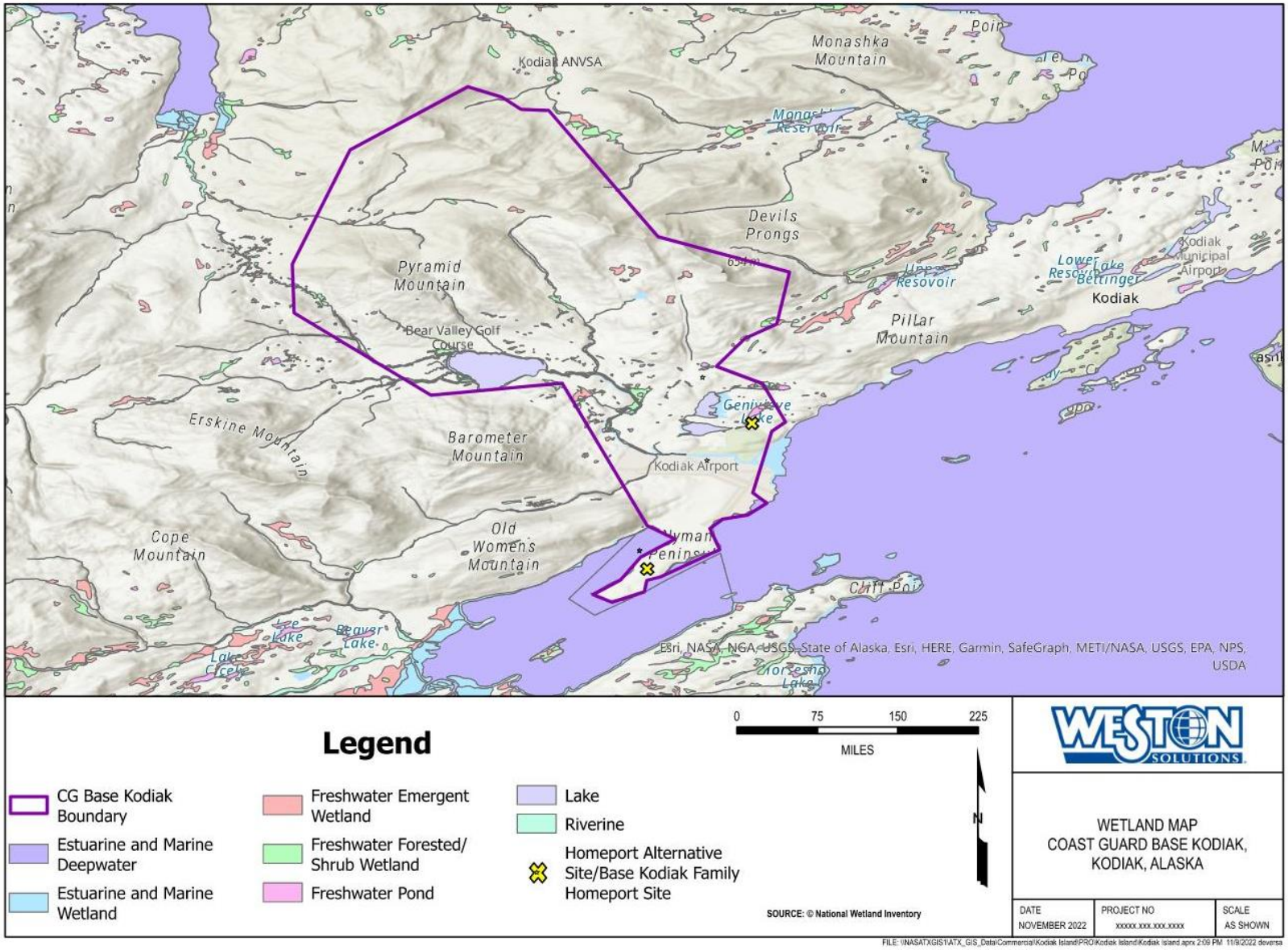
Wetlands may be classified as jurisdictional or non-jurisdictional. Jurisdictional wetlands include all wetlands connected to waters of the United States, as defined by USACE. Other designated waters of the United States under USACE's authority include navigable waters of the U.S. Jurisdictional Wetlands; designated waters of the United States are under the authority of USACE.

3.8.1.3.4.3 Wetlands

The wetland and shore area around the cargo wharf provides important habitats (Figure 4). The entire marine area surrounding Womens Bay is classified as an Estuarine and Marine Deepwater Wetland (coded as estuarine, subtidal, and unconsolidated bottom) by the National Wetlands Inventory (National Wetlands Inventory 2019). Estuarine habitats include saline, deepwater tidal areas and the adjacent tidal wetlands (National Wetlands Inventory 2019). "Subtidal" is a description for areas where the substrate is permanently flooded with tidal water. An unconsolidated bottom is an area with at least 25 percent cover of small particles (smaller than stones, less than 2.4 to 2.8 in [6 to 7 cm]) and less than 30 percent vegetative cover.

Subject to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 et seq.) and Section 404 of the CWA, a permit from USACE will be required for pile driving, buoys, dredging and disposal of dredged material, blasting, impacts to or destruction of wetlands, and discharge of fill into waters of the United States.

Figure 4. National Wetlands Inventory Classifications Near the Proposed Project Area



3.8.1.3.4.4 Other Waters of the United States

Section 10 of the Rivers and Harbors Act (33 U.S.C 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Womens Bay is classified as a navigable water of the United States to the mean high-water mark, and all activities in the Proposed Action area require USACE permitting under Section 10 of the Rivers and Harbors Act.

3.8.1.3.5 Floodplains and Flood Hazards

Floodplains are low-relief valley bottom lands created by periodic river flooding. The spatial extent of a floodplain is frequently described in terms of statistical flood frequency. The 100-year floodplain is land that has a 1 percent chance of flooding each year. No Federal Emergency Management Agency 100-year floodplain maps for the Proposed Action area have been published. The Proposed Action area are located outside of the predicted floodplain for Buskin River. The most likely flood hazards related to the proximity of the waterfront Proposed Action area to the bay, making it potentially susceptible to storm-related wave run-up or seismic activity (tsunamis). During the 1964 Alaska earthquake, tsunami-created waves of 6.1 meters were recorded in the vicinity of the Proposed Action area (NOAA 2009b). As a result of this earthquake, the peninsula's elevation was lowered by 6 ft (1.8 m), making the Proposed Action area susceptible to flooding by storm-driven waves and storm surges at high tide.

3.8.2 Environmental Consequences

Effects on water resources would be considered significant if Proposed Action-related activities resulted in an exceedance of a standard or permit condition for water quality or resulted in the filling in or removal of wetlands or other waters of the United States. However, using effective BMPs to reduce the environmental impacts and to meet water quality standards and permit conditions and USACE permit conditions for wetlands and waters of the United States, the Proposed Action is not expected to exceed significance thresholds.

3.8.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

3.8.2.1.1 Surface and Ground Water Quality

The Proposed Action would have minor adverse impacts on local water quality during construction activities on Nyman Peninsula in Inner Womens Bay. These would include short-term impacts, such as the following:

- Increased turbidity levels associated with disturbance of sediments from in-water construction activities (e.g., pile removal, installation and authorized discharge of rock socketing spoils, and fill placement). The increase in turbidity may cause temporary minimal changes in water chemistry and dissolved oxygen levels.

- Increased erosion and stormwater runoff during onshore construction activities.

- Increased risk of fuel and oil spill from vehicles and equipment used during construction. Such spills could contaminate receiving water bodies either through surface water runoff or spills seeping into the groundwater.

Standard contract provisions for USCG construction projects contain BMPs that are aimed at minimizing impacts on water quality, particularly related to erosion and contaminant control. As a component of the construction general permit, a site-specific SWPPP will be required. Use of this plan and BMPs will minimize the possibility of contaminating on-site waters during construction activities. In addition, permit conditions imposed by USACE for permitting new pier construction will minimize impacts on local water resources.

Pile driving, rock socket drilling, and fill placement in Womens Bay has the potential for short-term adverse impacts on water quality in the area. The Proposed Action would have minor adverse impacts from disturbance of marine sediments or contaminated soils from pile driving or fill placement. USCG will test soils for contaminants and will remediate the soils as necessary, subject to existing laws and regulations. All activities will conform to state and federal water quality standards. Further analysis of the impacts of the alternatives on site contamination and hazardous materials and wastes is discussed in Section 3.12.

Equipment staging or transport activities along Seafarer Drive during both demolition and construction could also impact existing groundwater resources should contamination enter local groundwater as a result of ground disturbance. BMPs, as described in Section 2.3, will limit the possibility of contamination. Should unknown sources of contamination be encountered during construction, USCG will notify the National Response Center and follow all applicable federal, state, USCG, and local environmental requirements.

The Proposed Action would have no significant adverse impacts on water quality during the repair and construction or following construction, during operation of the cargo wharf and the floating docks. Fueling systems and operations would not change as a result of the Proposed Action and will continue to comply with federal and state regulations and USCG instructions regulating marine fueling. These regulations and instructions include fueling system specifications for hoses, connections, and secondary containment; requirements for inspection and integrity testing of the fueling systems; and development of response plans. Base Kodiak operates under a recently revised Integrated Emergency Response and Prevention Plan, which addresses federal and state requirements for a Marine Transportation-Related Facility Response Plan (33 CFR 154.1045), SPCC Plan (40 CFR 112.7), Facility Response Plan (40 CFR 112.20), and State of Alaska Oil Discharge Contingency Plan (18 AAC 75). Commercial fuel supply vendors are required to have similar spill prevention plans.

3.8.2.1.2 Stormwater and Wastewater Drainage

Impacts of construction on stormwater and wastewater drainage are discussed in the previous section. No long-term changes to freshwater inputs, effluent mixing zones, or water quality are anticipated from either the proposed waterfront improvements or construction. Shore support structures and the paving of some parking areas could add a negligible amount of impervious surface to the Proposed Action area. Current APDES permits and associated stormwater plans may need to be modified as a result of added or altered industrial activities associated with the Proposed Action. The Proposed Action would not result in significant changes to the existing environment that could cause a long-term increase in stormwater runoff. The Proposed Action would result in no significant impacts on stormwater and wastewater drainage.

3.8.2.1.3 Wetlands and Waters of the United States

Under the Proposed Action, the repair and construction of the extended cargo wharf has the potential to adversely affect wetlands and waters of the United States. Subject to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the CWA (EPA 2009a). A Section 10 permit from the USACE will be required for in- and over-water work in a navigable water and Section 404 authorization will be required for placement of fill in waters of the United States. USACE is only allowed to permit the least environmentally damaging practicable alternative.

No dredging is anticipated as part of the Proposed Action or any of the other Alternatives.

Construction activities under the Proposed Action will be authorized with an appropriate USACE permit after consultation with USACE.

BMPs described in Section 2.3 have been incorporated into the Proposed Action to minimize the effects of this alternative on wetlands and waters of the United States. USCG assumes that future permits or approvals will include measures similar to, or as described in this EA. Additional terms and conditions to further reduce impacts may be required as part of these permits or approvals. The measures and conditions of approval developed through future coordination with the USACE will ensure that any alternative avoided significant impacts on wetlands and waters of the United States or reduced these impacts to less than significant levels.

3.8.2.1.4 Floodplains and Flood Hazards

The Proposed Action would have no significant adverse impacts on floodplains. No Federal Emergency Management Agency 100-year floodplain maps for the Proposed Action area have been published. The Proposed Action area is located outside of the predicted floodplain for Buskin River. The expanded cargo wharf and floating docks would likely have beneficial impacts on resistance to storm surge.

3.8.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No new operations or dredging would occur; therefore, no new impacts to water quality are expected.

3.9 CULTURAL RESOURCES

3.9.1 Affected Environment

Cultural resources are districts, buildings, sites, structures, areas of traditional use, or objects with historical, architectural, archaeological, cultural, or scientific importance. They include archaeological resources (both prehistorical and historical), historical architectural resources (physical properties, structures, or built items), and traditional cultural resources (those important to living Native Americans, including Alaska Natives, for religious, spiritual, ancestral, or traditional reasons). Maritime cultural resources can include submerged prehistorical sites, shipwrecks and associated debris, and historical materials that were intentionally dumped or lost during historical use of the bay and its shoreline.

NHPA establishes national policy for protecting significant cultural resources that are defined as "historic properties" under 36 CFR 60.4. NHPA Section 106 (36 CFR 800) requires that federal agencies consider and evaluate the effect that federal projects may have on historic properties under their jurisdiction. Only significant cultural resources are considered for potential adverse impacts from a federal action.

3.9.1.1 History of Base Kodiak and the Surrounding Area

The following historic context summarizes a more in-depth treatment (with citations) provided in a Section 106 report for the Base Kodiak OPC and FRC Homeporting Project prepared for USCG (Sneddon 2021).

The original inhabitants of Kodiak Island were the sea-dependent Alutiiq people, who inhabited Kodiak Island for approximately 7,300 years prior to western contact. Russian settlers arrived in the late eighteenth century, and the Russian settlement on Kodiak Island served as a base for fur trading for the next 80 years. After the United States purchased Alaska in 1867, fishing replaced the fur trade on Kodiak as the mainstay of the economy.

In the late 1930s, the growing threat of war with Japan led the United States to begin constructing a network of military bases throughout the Alaskan territory. Construction on the Kodiak Island naval base began on September 23, 1939. The U.S. Navy, U.S. Department of the Army (U.S. Army), and U.S. Army Air Corp would eventually share the base, which included support facilities for aircraft, submarines, and ships as well as coastal defenses and extensive troop housing, making Kodiak one of the most fortified facilities in Alaska.

Several waterfront facilities on Womens Bay were constructed to support base operations, including a tanker and tender pier (later designated as the fuel pier), small vessel moorings, a crash boat house, and a marginal wharf for the submarine base.

The Japanese invasion and occupation of two Aleutian Islands, Attu and Kiska, several months after the attack at Pearl Harbor made Alaska and the North Pacific a major theater in the first years of World War II (WWII). The base was never attacked during the war, but forces from Base Kodiak carried out patrols by air and sea; supported search-and-rescue efforts; serviced surface vessels, submarines, and aircraft; and provided supplies for other bases and operations. At its height, Kodiak had over 1,200 buildings and housing for more than 40,000 personnel. After Attu and Kiska were retaken in 1943 and the Japanese threat to Alaska subsided, operations were scaled back at Kodiak and other Alaskan naval bases. By May 1944, many of the U.S. Army coastal artillery and infantry units had departed. The submarine base was decommissioned the following year. The war marked the beginning of a large and ongoing military presence on the island, which brought significant change to the island's economy and population.

The emergence of the Cold War in the late 1940s and the assignment of a USCG detachment to Base Kodiak renewed its strategic importance, but with new missions. During the Cold War, naval forces from Kodiak carried out reconnaissance missions, military air transport services, air and sea patrols, and antisubmarine maneuvers, primarily with aircraft. The U.S. Navy also built a new communications complex to support operations.

After the 1964 earthquake and tsunami destroyed the old U.S. Army dock used for cargo transfer and severely damaged the fuel pier, the U.S. Navy had to reinvest in the base's waterfront facilities. The fuel pier was extensively reconstructed, and the U.S. Navy built the current cargo wharf and associated transit shed in 1967 at a location just north of the fuel pier on Nyman Peninsula. The new cargo wharf, more conveniently located within the base itself, took over many of the duties of the marginal wharf and now defunct U.S. Army dock.

Under the direction of Secretary Robert McNamara, the U.S. Department of Defense pursued a program of base closures during the 1960s that closely evaluated Alaskan military installations. Additionally, as part of a series of cutbacks in this period, the U.S. Navy phased out its seaplanes and seaplane tenders (the type of aircraft Base Kodiak was originally designed to support) and eliminated several district commands, including District 17 headquartered at Kodiak. As plans called for closure of Base Kodiak in 1972, Alaskans protested the military cuts, which left one-fifth of the land area of the United States without the capacity to defend itself against conventional attack. Although the U.S. Navy was scaling back operations in Alaska, USCG's presence at Kodiak had been gradually increasing, incorporating new technologies, vessels, and aircraft to carry out its missions. Ultimately, the U.S. Navy transferred Base Kodiak to USCG in 1972, ending a 33-year-long history with the facility.

After the U.S. Navy left Kodiak, USCG began the long process of converting the former U.S. Navy base to its needs. Because of the presence of the cutters, LORAN supply mission, and other vessel berthing uses, the fuel and cargo facilities remained important assets, whereas most of the WWII-era buildings and structures along the northwestern shoreline of Nyman Peninsula were torn down or abandoned, including the former Administration Building (1) that was replaced on the site in 1985 with the commissary building (N27), constructed in a different architectural style. The former U.S. Navy electronics maintenance shop (549) was given to NOAA for use as a data buoy office, and a small building moved to the site by the U.S. Navy in 1961 to service radiological equipment (A512) was handed over to Base Operations Support Services for use as an office. Although re-built in the mid-1950s, by the 1970s, Marginal Wharf had deteriorated to a point that USCG chose not to invest further in its maintenance.

In contrast, USCG spent millions upgrading the fuel pier and extending the cargo wharf. USCG mission expanded in the 1970s and 1980s as the fisheries conservation zones increased in 1977 from 3 mi (4.8 km) off the United States coastlines to 200 mi (322 km) and as new maritime shipping and vessel regulations and marine environmental protection programs were promulgated. By the 1980s, Base Kodiak was the largest of the USCG bases in terms of property, combined air and sea assets, and area of operations. To improve the freight transfer and berthing capacity of the cargo wharf, in 1986, USCG added a second section, approximately 445 ft (136 m) long, to the southwest end of the pier. This section was angled slightly into the bay, which permitted mooring on either side. In 1990, most of the piles in the original 1967 section were cut just above mean low water level and spliced with new piles. Additional repair work was carried out on the cargo wharf in 2008, instead of committing resources to upgrading the other waterfront support facilities on Nyman Peninsula, the fuel pier, and the cargo wharf. USCG vessels, together with the air assets, have continued to rely on Base Kodiak's waterfront facilities, modernized over the years, to carry out core missions and support the base.

3.9.1.2 Existing Cultural Resources

In 1985, a 4.7-mi^2 (3,000-ac) area encompassing land within the former military holdings on Kodiak Island was designated the Kodiak NOB and Forts Greely and Abercrombie NHL by the Secretary of the Interior, commemorating the role of the naval base and coastal defenses in WWII. The larger section of the noncontiguous NHL (referred to as the Kodiak NOB NHL) encompasses a portion of the former NOB, the land-plane airfield, part of the former U.S. Army garrison, and ordnance magazines; a smaller section of the NHL lies within the Fort Abercrombie State Park north of the former naval base.

NHLs are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Along with Sitka Naval Base, Dutch Harbor Naval Base, and Ladd Field, the Kodiak NOB represents the build-up of Alaska's defenses from essentially nonexistent in 1938 to an extensive, important asset to the United States war effort in the North Pacific.

A 1997 survey provided the basis for determining contributing resources to the Kodiak NOB NHL. On the Nyman Peninsula waterfront, the few extant WWII-era buildings and structures recommended for the NHL included the marginal wharf (capitalized resources indicated NRHP status), former Battery Overhaul Shop S-3 (no longer extant), and central Power Plant. Since 1997, several other surveys conducted to comply with Section 106 of the NHPA have evaluated buildings and structures in the vicinity of the Proposed Action, not only for WWII significance but for associations with the Cold War era and USCG.

To fulfill the broader consideration of cultural resources beyond the NHPA definition of historic properties required under NEPA (40 CFR 1508.27), an additional survey examined other potential impacts of the Proposed Action. Research identified no local or county historic registers that listed historic properties within the area of potential effects (APE) or in the vicinity of the Proposed Action, or areas of tribal significance that would be adversely affected by the Proposed Action, or that indicated the resources affected by the Proposed Action were culturally significant beyond the NHL and NRHP designations.

3.9.1.3 Aboveground Resources

A Section 106 review of the OPC and FRC Homeporting Project prepared for USCG delineated an APE for the project that included direct effects and potential indirect effects (in this case, the visual effects associated with the proposed construction). The Section 106 review identified 12 historic properties within the project's APE: 11 contributing resources to the Kodiak NOB NHL (the marginal wharf, three Seaplane Ramps, the Air Station Apron, three Hangars, a former WWII Sentry Post, Powerplant, and Recreational Facility) and the former cargo wharf Transit Shed (Building 614, now an auto hobby shop), determined eligible for the NRHP for its association with U.S. Navy and USCG logistics. The cargo wharf itself has been previously evaluated and determined not eligible for the NRHP by the USCG and Alaska SHPO with concurrence from NPS (Sneddon 2021).

3.9.1.4 Archaeological Resources

No archeological sites have been identified near the cargo wharf. The closest recorded sites include KOD-00563, a "prehistoric tomb" found in 1973 by USCG personnel eroding from the coastal

bluff on the east side of Nyman Peninsula, and KOD-00200, a grass-covered mound of thin layers of midden materials discovered in 1996, also on the eastern edge of the peninsula. Skeletal remains were excavated from KOD-00563 and a large number of artifacts recovered. The western side of Nyman Peninsula has been heavily disturbed by activities related to construction of the waterfront facilities, which included dredging and filling, road grading, excavation for foundations and utilities. Fill was added to extend the buildable area in the northwest, and a utility corridor was installed along the western shoreline to connect the marginal wharf and fuel pier with water, electrical, steam, and petroleum service. The Section 106 review of the Proposed Action found the demolition efforts highly unlikely to encounter or adversely impact archaeological resources since no excavation is planned (Sneddon 2021).

3.9.1.5 Alaska Native Stakeholders

Kodiak is home to Alaska Native tribes and communities. A list of stakeholders including tribes and other local governments contacted during scoping is included in Section 4. These stakeholders will be notified of the availability of this EA.

3.9.2 Environmental Consequences

Effects on cultural resources may be considered significant if the Proposed Action resulted in adverse effects on any site listed or potentially eligible for listing in the NRHP or other significant cultural resources. As noted above, the APE for this analysis included a large area associated with potential direct and indirect effects.

3.9.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

3.9.2.1.1 Effect of Proposed Action on NHL Contributing Resources

The effect of the modifications to the cargo wharf proposed by the project on the NHL's integrity of setting, feeling, and association is lessened by the long presence of the cargo wharf at Base Kodiak. In addition, USCG has designed the alterations in accordance with the Base's Kodiak NOB NHL Design and Maintenance Guidelines (DMGs), developed to maintain the integrity of the NHL. In accordance with the DMGs for new construction within the Kodiak NOB NHL, the new wharf abides by the following:

- It does not destroy historic materials (the cargo wharf itself is not eligible for the NRHP and post-dates the NHL's period of significance).

- It avoids obstructing or obscuring sightlines between historic resources and character-defining features of historic resources. Most of the contributing resources (seaplane ramps, apron, hangars) are between 0.35 and 0.5 mi (0.6 and 0.8 km) away. The closest distance from the cargo wharf to the nearest visible contributing resource to the NHL (the Powerplant) is approximately 970 ft (295.7 m) The new wharf generally maintains the same dimensions and height of the pier, and the floating concrete docks would only extend a maximum of 2.67 ft (0.8 m) above the water line.

- It is compatible with the existing massing, scale, size, and architectural features of the NHL. The floating docks and new wharf would not significantly add to the scale and size of the current pier, which is not in close proximity to the nearest contributing resources to the NHL.

- If removed in the future, the essential form and integrity of the NHL will be maintained.

3.9.2.1.2 Effect of Proposed Action on NRHP-Eligible Transit Shed (Building 614)

Because alteration of the existing cargo wharf, which has undergone several modifications in the past, would not affect the character-defining features and historic integrity of the former Transit Shed (auto hobby shop Building 614), built in 1968, the Proposed Action would not adversely affect the historic property.

3.9.2.1.3 Effect of Proposed Action on Archaeological Resources

The Proposed Action would have no anticipated adverse effect on prehistoric or historic archeological resources. As described above, the area targeted for ground disturbance is heavily developed, and previous ground-disturbing activities would have likely destroyed the integrity of any archaeological resources that may have been present before Base Kodiak was constructed. As described in Section 2.3.5, standard contract provisions for USCG construction projects require that if previously unknown resources are encountered during construction, construction will be halted and the resource will be evaluated by a qualified archaeologist. If the resource is historically significant, the Proposed Action will be redesigned to mitigate, reduce or eliminate impacts on those resources. If the properties cannot be avoided, consultation will be conducted with the SHPO, NPS, consulting tribes, and the interested public.

The Proposed Action poses no potential to adversely affect customary and traditional practices, including harvesting of traditional subsistence resources and associated cultural exchanges. Base Kodiak is a restricted-access area, and no traditional or cultural practices are known to occur in or adjacent to the APE.

3.9.2.1.4 Anticipated Consequences

In compliance with Section 106 of the NHPA, USCG, Alaska SHPO, and NPS have determined that the Proposed Action would have no adverse effect on any resources eligible or potentially eligible for listing on the NRHP. USCG has also notified NPS regarding this determination. USCG will reinitiate consultation with the SHPO and NPS, if necessary, after the Proposed Action is approved and detailed design is available.

3.9.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No new operations or dredging would occur. The No Action Alternative would have no impact on cultural resources, including contributing resources of the NHL.

3.10 TRANSPORTATION

3.10.1 Affected Environment

Kodiak Island is accessible by both air and sea. The Kodiak Airport, located just north of Base Kodiak, is served by three scheduled airlines, and multiple air taxi services provide flights to other communities on the island. The Alaska Marine Highway System operates a ferry service to/from

Seward and Homer from the Kodiak city pier during the months of April through December. Approximately 140 mi (225 km) of state roads connect island communities on the east side of the island (USCG 2009). Onshore and marine transportation at Base Kodiak are described in the following sections.

3.10.1.1 Onshore Transportation

Seafarer Drive, the route used to access the waterfront Proposed Action site, experiences a reasonably high volume of vehicles, bicycles, and pedestrians (USCG 1996). Nyman Peninsula and Seafarer Drive are accessed through the primary Base Kodiak Road network. Rezanof Drive West is the only onshore route that connects Base Kodiak to the City of Kodiak and other areas of the island. The onshore routes will be used to deliver and mobilize supplies and equipment during demolition and construction.

3.10.1.2 Marine Transportation

The cargo wharf is located on Womens Bay and provides berthing for homeported cutters and visiting vessels. The fuel pier is located approximately 0.25 mi (0.4 km) from the cargo wharf and is used for fueling USCGCs and partner agency vessels. The fuel pier is also where fuel barges deliver fuel to the fuel farm at a rate of four to six deliveries per year. The Marginal Wharf is approximately 0.5 mi (0.8 km) from the cargo wharf and has been condemned due to deteriorating structural conditions. The City of Kodiak port is approximately 7 mi (11.3 km) northeast of the fuel pier and serves both commercial and recreational vessels and is the main port for the commercial fishing industry in the GOA.

3.10.2 Environmental Consequences

The Proposed Action would have a significant transportation impact if it were to seriously impede any transportation or navigation route in the Proposed Action area.

3.10.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have no more than minor adverse traffic impacts during the 24-month construction period. Traffic on local roadways and waterways would increase as construction equipment and supplies are brought to and from the Proposed Action site. During the same time, water-based construction would occur on and alongside the cargo wharf but impacts of those activities will be moderated by scheduling of cutter in-port times. FRCs would create additional traffic since Base Kodiak does not currently support a patrol boat mission. Fueling operations at Base Kodiak would remain fully operational during construction.

This alternative would have no significant adverse impacts on navigability. The new cargo wharf, wharf extensions, and new floating docks would not interfere with navigation and would provide a broader ability for Base Kodiak to support and moor visiting vessels as scheduling allows.

3.10.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place to allow for the homeporting of two FRCs and two OPCs, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. Additionally,

no new operations or impacts to navigability and/or transportation would occur. Further, under the No Action Alternative, the cargo wharf would be unable to moor NSCs, forcing those ships to moor elsewhere and producing minor adverse transportation impacts at those sites.

3.11 INFRASTRUCTURE, UTILITIES, AND SERVICES

3.11.1 Affected Environment

3.11.1.1 Infrastructure

The existing Base Kodiak cargo wharf consists of three sections: 1) the 84-ft, shore-side segment of the pier, which consists of the original timber construction; 2) the next 76 ft (23.2 m), which were replaced in 2009 by two steel catwalks, one of which is for pedestrians and one of which is for utilities; and 3) the outboard 443 ft (135 m) of the pier, which is a steel pile-supported structure with a grated steel perimeter deck. To minimize repair costs, the pier center remains uncovered and open to the water. The pier can only be traversed by foot traffic and hand carts**.**

3.11.1.2 Utilities

Current cargo wharf utility services include electrical, potable water, and sewer connections. Systems are also in place for collecting waste oil and for providing diesel fuel. Details on each utility service or system are provided below.

Electrical power for the cargo wharf is provided by a Kodiak Electric Association (KEA) overhead radial feeder. The feeder terminates at a pair of poles at the head of the fuel pier.

The cargo wharf has potable water service of 80 to 85 pound(s) per square inch gauge from a 3-in (7.62 cm) line, which originates from an 8-in (20.3-cm) main along the street. Hose bib and hydrant connections are available on the piers.

Sanitary sewage is pumped from ships through hoses to the gravity-flow, 6-in (15.2-cm) sanitary sewer line under the cargo wharf. It is then stored in a sump pit on shore, which is pumped out by truck as needed. Base Kodiak has a sewage capacity of 1.5 million gallons per day by permit.

Waste oil can be offloaded at the cargo wharf and the fuel pier, depending upon outside temperatures. Oily water and waste oil is pumped from the ships by hose into a pipeline connection at the head of the fuel pier, where it flows by gravity into the liquid oil waste storage. Water is separated and discharged to the sanitary sewer line, while oily water and waste oil is pumped into trucks and transported to the waste oil facility located on Base Kodiak. Oily water and waste oil at the cargo wharf is collected by vacuum truck and taken to Base Kodiak's Liquid Oily Waste facility for further processing.

3.11.1.3 Emergency Services

Base Kodiak is patrolled by USCG police/security, and USCG has concurrent jurisdiction with the state on USCG property. The Base Kodiak Fire Department is staffed by 32 civilian personnel and provides response services to the Base as well as to Kodiak Airport. The fire department responded to over 586 rescue, medical, and fire emergency calls in 2008 (USCG 2009).

Local hospitals or health clinics include Alutiiq Health Clinic, Kodiak Community Health Center, Providence Kodiak Island Medical Center, and USCG Rockmore-King Medical Clinic. USCG clinic provides emergency support only, not routine care. Emergency services have limited highway, marine, airport, floatplane, and helicopter access. Emergency service is provided by 911 telephone service and paid Emergency Medical Services.

3.11.2 Environmental Consequences

Effects on utilities, infrastructure, or services would be considered significant if the Proposed Action created a demand that exceeded the capacity of the service provider.

3.11.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have beneficial impacts on utilities, infrastructure, and services by upgrading systems that are currently lacking. The upgraded cargo wharf at Berth 2 would be able to accommodate crane operations, work vehicles, and emergency vehicles. Electrical service would be upgraded to meet the higher power demand of NSCs and OPCs.

Sewer requirements would be comparable to current conditions and would not exceed the capacity of the current service provider. Fueling and oily water/waste oil systems also would not change. Electricity usage would increase but would not exceed the capacity of KEA to provide this service.

Demolition debris will be recycled through the Base Kodiak recycling contract to the greatest extent possible. Materials that could not be recycled will be disposed of at the borough landfill, creating a minor adverse impact. The borough landfill has the capacity for the expected demolition debris.

Since operations would not change with new pier construction, no adverse impacts to emergency service providers would occur as a result of this Proposed Action.

3.11.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place to allow for the homeporting of two FRCs and two OPCs at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No new operations or construction of new facilities would occur. Under the No Action Alternative, no change in demand for utilities or services and no changes to cargo wharf infrastructure would occur.

3.12 HAZARDS AND HAZARDOUS SUBSTANCES

3.12.1 Affected Environment

3.12.1.1 Natural Hazards

3.12.1.1.1 Seismic Activity

Kodiak Island sits in a seismically active region, near the intersection of the Pacific and North American plates. A 9.2 magnitude earthquake in 1964 lowered the elevation of Nyman Peninsula and the entire island by 6 ft. Base Kodiak warrants a Seismic Zone 4 rating by the International

Conference of Building Officials. Earthquake catalogues for the Kodiak region list 38 earthquakes since 1899 of magnitude 7.0 to 7.9, 2 of magnitude 8.2 and 8.3, and the magnitude 9.2 earthquake in 1964. On average, a magnitude 7 or larger earthquake strikes the Kodiak Island Borough region every 2.5 years.

A fuel pier rehabilitation plan and Cargo Wharf investigation were conducted in March 2007 (USCG 2007). The report did not include any seismic rehabilitation recommendations for the cargo wharf.

3.12.1.1.2 Tsunamis

As discussed in Section 3.8, the proximity of the Proposed Action area to the bay makes it potentially susceptible to tsunamis. During the 1964 earthquake, tsunami-created waves of 6.1 meters were recorded in the vicinity of the Proposed Action area (NOAA 2009b).

3.12.1.2 Site Contamination

Historical uses in the waterfront Proposed Action area, including industrial activities and fuel and hazardous materials storage dating back to the 1940s, have resulted in elevated levels of some contaminants in the Proposed Action area. Several Solid Waste Management Units are in operation on Nyman Peninsula, the cleanup of which is regulated by EPA.

The in-water construction portion of the Proposed Action would be within a RCRA Part B Permit designated contaminated site, Solid Waste Management Unit 32 (Inner Womens Bay), and on land historically used for industrial purposes. The contractor will develop and approve an EMP prior to construction. The EMP will be submitted to ADEC and EPA for review and approval prior to implementation. The plan will include the handling, storage, cleanup, and disposal of petroleum products and other hazardous substances used during construction. The purpose of the EMP will be to ensure all Proposed Action activities comply with ADEC 18 AAC 75 regulations, RCRA regulations, and Base Kodiak's RCRA Permit AK9690330742.

3.12.1.3 Hazardous Materials and Wastes

USCG continuously monitors its operations to find ways to minimize the use of hazardous materials and to reduce the generation of hazardous waste.

Hazardous waste is temporarily stored at the hazardous waste storage building, located centrally on Nyman Peninsula, until such time that it is transported off-site to a RCRA facility for treatment and/or disposal. Some non-regulated hazardous material is also stored in the storage building until it can be sent off-site for recycling or disposal (EPA 2009b). EPA, in consultation with ADEC, is proposing to reissue a permit for Base Kodiak to operate the hazardous waste storage facility (EPA 2009c).

3.12.2 Environmental Consequences

Effects on public health and safety would be considered significant if Proposed Action-related activities were to create new levels of health hazards or safety concerns for the public at large or for individuals directly involved with Proposed Action activities.

3.12.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would have beneficial impacts from improved seismic safety associated with the shoreside stabilization.

The Proposed Action would have minor adverse impacts if demolition or construction activities revealed the presence of contaminated marine sediments during in-water work. BMPs described in Section 2.3 will be followed if sediments suspected of being contaminated were encountered. Remediation will likely include removal and disposal of contaminated sediments to a RCRA-approved facility.

The Proposed Action would have minor adverse impacts if demolition or construction activities revealed the presence of historical unexploded ordnance (UXO). A recent UXO study of the area was completed by USCG, in late 2020. The study found no UXO items within the Proposed Action footprint. As a result, no additional UXO studies are planned.

The Proposed Action would have minor adverse impacts on worker health and safety during construction activities. Workers could be exposed to risk of injury or death from on-the-job risks, including falling, slipping, tripping, falling objects, incidents with moving equipment and machinery with moving parts, exposure to hazardous substances, and exposure to excessive noise. All construction contractors will be required to comply with OSHA regulations regarding safety measures and precautions on the job site, reducing the potential impact from construction-related accidents.

The Proposed Action could have minor adverse impacts from the release of, and human exposure to, small amounts of hazardous materials and wastes, including fuel, oil, paints, lubricants, and other substances used in construction. Standard BMPs, as described in Sections 2.3.4 and 2.3.6, will be employed to reduce the likelihood of accidental spills occurring or to respond effectively and efficiently if an accidental spill occurs.

3.12.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. The No Action Alternative would have no impacts from the release of, and human exposure to, hazardous materials and wastes.

3.13 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

3.13.1 Affected Environment

3.13.1.1 Population and Demographics

The Proposed Action is located on Base Kodiak, which the U.S. Census Bureau (USCB) identifies as Kodiak Station Census Designated Place (CDP) for census purposes. Kodiak Station CDP has a population of approximately 1,673, as reported by the USCB's 2020 Decennial Census (USCB 2020a).

The nearest city is Kodiak, AK, which is approximately 7 mi (11.3 km) from Base Kodiak. Kodiak is a small city of approximately 5,581 residents, as reported by the 2020 Decennial Census.

Table 6 describes the population characteristics of Kodiak Station CDP and the City of Kodiak in comparison with those of the State of Alaska and the United States as a whole. It compares the total population from the 2020 Census with the 2020 American Community Survey (ACS) 5-Year Population Estimate.

Table 6. Kodiak Population Characteristics

Population Parameter	Year	Kodiak Station CDP	City of Kodiak	Alaska	United States
Total Population	2020 Census	1,673	5,581	733,391	331,449,281
	2020 ACS	1,789	5,983	732,673	326,569,308
percent Male	2020 ACS	60.0	52.7	52.3	49.2
percent Female	2020 ACS	40.0	47.3	47.7	50.8
Median Age	2020 ACS	24.6	38.3	33.9	38.2

Notes:
Sources: USCB 2020b
CDP – Census Designated Place
ACS – American Community Survey

As described in Table 7, ethnic diversity of Kodiak Station CDP is much lower than that of the City of Kodiak, the State of Alaska and the United States as whole, with the majority of the population defining themselves as white.

Table 7. Kodiak Ethnicity Characteristics

Race[1] (percent)	Year	Kodiak Station CDP	City of Kodiak	Alaska	United States
White	2020 Census	79.0	33.6	59.4	61.6
	2020 ACS	84.5	38.1	59.4	61.2
Black or African American	2020 Census	2.7	0.6	3.0	12.4
	2020 ACS	3.5	0.0	3.0	12.1
American Indian or Alaska Native	2020 Census	2.0	10.9	15.2	1.1
	2020 ACS	0.3	6.6	13.7	1.0
Asian	2020 Census	4.0	41.2	6.0	6.0
	2020 ACS	1.5	46.5	6.5	5.8
Native Hawaiian or Other Pacific Islander	2020 Census	0.3	1.1	1.7	0.2
	2020 ACS	0	0.5	1.5	0.2
Hispanic or Latino (of any race)	2020 Census	10.8	8.8	6.8	18.7
	2020 ACS	9.5	4.7	7.1	18.8
Other Race	2020 Census	4.4	3.5	2.5	8.4
	2020 ACS	3.6	0.7	2.6	7.2
Two or More Races	2020 Census	13.5	9.1	12.2	9.6
	2020 ACS	6.6	7.7	13.3	12.6

Notes:
[1]An individual may have one single race or multiple races; therefore, total percentages are greater than 100 percent.
Sources: USCB 2020b
CDP – Census Designated Place
ACS – American Community Survey

3.13.1.2 Income and Housing

Income and poverty levels for Kodiak Station CDP are presented in comparison with the City of Kodiak, the State of Alaska, and the United States in Table 8. Income levels are higher and poverty levels are lower for the Kodiak Station CDP than those of the City of Kodiak and the State of Alaska.

Table 8. Kodiak Income and Poverty Levels

Population Parameter	Kodiak Station CDP	City of Kodiak	Alaska	United States
Median Household Income (dollars)	87,050	69,259	77,845	69,717
Mean Per Capita Income (dollars)	25,306	31,371	39,509	38,332
Families Below Poverty Level (percent)	2.4	5.5	7.1	9.1
Individuals Below Poverty Level (percent)	5.2	6.9	10.5	12.8

Notes:
Source: USCB 2020b
CDP – Census Designated Place

Based on the 2020 USCB ACS, the unemployment rate for the civilian labor force in the Kodiak Station CDP is 0 percent, lower than the City of Kodiak (5.2 percent), the State of Alaska (4.3 percent), and the United States (3.9 percent). The two largest industries providing civilian employment in the Kodiak Station CDP are educational services, health care, and social assistance (31.1 percent) and professional, scientific, management, and administrative and waste management services (14.9 percent); the two largest industries providing civilian employment in the City of Kodiak are manufacturing (32.5 percent) and educational services, health care, and social assistance (19.7 percent). Most occupations in the State of Alaska are in educational services, health care, and social assistance; retail trade; and public administration, whereas occupations in the United States as a whole are mostly educational services, health care, and social assistance; professional, scientific, and management; and administrative and waste management services; and retail trade (USCB 2020b).

USCG housing on Kodiak Station CDP (Base Kodiak) consists of 552 housing units, not including barracks, most constructed prior to 1990 (USCB 2020b). Peterson Elementary School is located on Base Kodiak and has approximately 270 students enrolled in kindergarten through fifth grade (ADEC 2019).

The median monthly gross rent for the City of Kodiak is $854.00 as estimated by the 2020 USCB ACS. Gross rents include all utilities and other expenses associated with housing. The ACS estimates the vacancy rate in Kodiak to be approximately 15.1 percent.

3.13.1.3 Healthcare and Education

The Base Kodiak Medical/Dental Clinic provides services and support functions for all USCG units located in Kodiak. The medical facility is a limited service medical and dental clinic. If the clinic cannot handle the nature of the medical or dental ailment, the patient may be referred to Providence Kodiak Island Medical Center in Kodiak, the Joint Base Elmendorf-Richardson Hospital in Anchorage, or another local doctor/dentist.

Dependents of personnel stationed at Base Kodiak may attend Peterson Elementary School, located on Base Kodiak, or either Kodiak Middle School or Kodiak High School, both of which are approximately 7 mi (11.3 km) from Base Kodiak.

Kodiak College is a public, 2-year satellite campus of the University of Alaska Anchorage, with a student body of approximately 1,000. It is located approximately 7 mi (11.3 km) from Base Kodiak.

3.13.2 Environmental Consequences

The region of influence considered for socioeconomics and environmental justice is Base Kodiak (Kodiak Station CDP) and the City of Kodiak.

Impacts associated with the Proposed Action would be considered significant if Proposed Action-related activities were to result in a substantial detrimental effect to the economy on a local or regional level and/or if minority and low-income populations were adversely affected.

3.13.2.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

Under the Proposed Action, two FRCs and one OPC would arrive in 2025, the second OPC would arrive in 2026, and the third FRC would arrive in Seward in 2026. The homeporting of the two FRCs and two OPCs along with the temporary homeporting and long-term maintenance support of the third FRC would result in 366 new personnel stationed at Base Kodiak, 106 more personnel than that which was associated with the Alex Haley and Douglas Munro. In addition, a net increase in civilian dependents as a result of these new USCG personnel is expected.

Short-term impacts on socioeconomics from construction of the Proposed Action include impacts to the economy, housing, education, and healthcare. A minor beneficial impact would occur to the local economy because of construction activities. Minor adverse impacts would occur on housing, education, and healthcare because of additional use of these resources during construction. No short-term impacts on environmental justice populations would occur from the Proposed Action.

Long-term impacts on socioeconomics from operation of the Proposed Action include impacts to the economy, housing, education, and healthcare. A minor beneficial impact would occur to the local economy because crewmembers and dependents would be expected to use commercial services available in the City of Kodiak. Minor adverse impacts would occur on housing, education, and healthcare because of additional use of these resources by personnel and their dependents. The addition of crewmembers to Base Kodiak would not create a demand on local education or healthcare systems beyond their current capabilities. No long-term impacts on environmental justice populations would occur from operation of the Proposed Action.

3.13.2.2 No Action Alternative

Under the No Action Alternative, none of the proposed waterfront improvements or construction would take place. The two FRCs and two OPCs would not be homeported at Base Kodiak, nor would temporary homeporting support or long-term maintenance support be provided for a third FRC. No new operations or construction would occur. The No Action Alternative would have no impacts on either socioeconomics or environmental justice.

3.14 CUMULATIVE IMPACTS

A cumulative effect is defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (40 CFR 1508.7). The cumulative analysis considers large-scale programs or changes being planned or implemented in the vicinity of Base Kodiak. Table 9 lists the actions included in the cumulative effects analysis.

Table 9. Actions Evaluated for Cumulative Effects

Cumulative Actions	Action Descriptions
Nemetz Park Multi-Phase Housing Project	USCG plans to construct a housing development near Lake Louise on Kodiak Island as part of a base-wide infrastructure improvement program. The Project—designated the Nemetz Housing Development—will consist of approximately 20 two-story, duplex-type buildings for officers' quarters built on former housing sites. The project location covers approximately 24.2 ac (0.04 mi^2) .
Base Kodiak Aviation Hill Water Tank	A 400,000-gallon water tank currently located on Aviation Hill is nearing the end of its service life and needs to be replaced. A new one is planned to be built next to the existing one.
Demolition of Marginal Wharf	USCG is currently planning to demolish the marginal wharf at the southwestern tip of the Nyman Peninsula and seawater intake structures at the northeastern tip of the Nyman Peninsula.
Demolition of Float Plane Crash Boat Basin	USCG is planning to remove abandoned and partially demolished remnant structures associated with the Float Plane/Crash Boat Basin approximately 1.3 mi (2.1 km) northeast of the Proposed Action.
Replacement of Fuel Pier	USCG has received approval and funding for the replacement of the existing fuel pier in Kodiak, AK, that serves as a transient berth to support fueling requirements for NSCs, OPCs, FRCs, and other visiting cutters. This project supports a rebuild of the current pier and replacement of existing fuel transfer infrastructure and is targeted to occur between Fiscal Year 2025 and 2027.
CDC at Base Kodiak	USCG is also considering reconfiguration of the CDC at Base Kodiak to address current deficiencies as well as to accommodate additional children that would result from an increased number of dependents from the proposed homeporting of the FRCs and OPCs. The CDC is located in Building N41, a single-story, 14,022-ft^2 (1,302.7-m^2) building constructed in 1986. Like many of the Base Kodiak facilities, the CDC is located within the tsunami inundation zone. The CDC capacity is 100 children but currently operates with a waitlist of 30 to 40 children. CG-111 assessment indicates that the Kodiak CDC requires reconfiguration of the current spaces; increased infant, toddler, and preschool areas; a larger kitchen; an additional multi-purpose room; and three additional employees to support 72 additional children. Development of a new CDC will be subject to separate environmental review.
Kodiak Airport Expansion	The Kodiak Airport, which is located adjacent to Base Kodiak to the northeast, was expanded. The project was to provide runway safety areas that meet current Federal Aviation Administration standards to the extent practicable. The project extended the ends of two runways, including placing fill in St. Paul Harbor to create land mass expansions. The work was completed in October 2015.

USCG – United States Coast Guard
acre – acre(s)
mi^2 – square mile(s)
mi – mile(s)
km – kilometer(s)
CDC – Child Development Center
OPC – Offshore Patrol Cutters
AK – Alaska
FRC – Fast Response Cutters
NSC – National Security Cutters

3.14.1 Land Use

The Proposed Action and all alternatives, in combination with other cumulative actions, would have minor impacts to land use. The Proposed Action and the cumulative actions listed in Table 9 would occur on federal lands already developed for the proposed uses and would be consistent with approved land use plans. The Proposed Action or alternatives would not contribute to a significant cumulative impact to land use.

3.14.2 Visual Resources

The Proposed Action and all alternatives, in combination with other cumulative actions, would result in minor visual changes compared to current conditions. These changes would be largely consistent with the existing, developed visual character of Base Kodiak and the surrounding area. The Proposed Action or alternatives would not contribute to a significant cumulative impact to visual resources.

3.14.3 Air Quality

The Proposed Action would have minor incremental adverse impacts on air quality from construction and from increases in vessel and aircraft operations if increases occurred. No violations of NAAQS are expected to result from cumulative projects listed in Table 9, given the current air quality and the meteorological conditions of the Proposed Action area.

3.14.4 Noise

Given the dispersed nature of the cumulative actions in the Proposed Action area, the Proposed Action would have no incremental adverse noise impacts resulting from the use of mechanized construction equipment or expanded operations.

3.14.5 Geology and Soils

The Proposed Action and cumulative actions would have incremental beneficial impacts by improving safety at Base Kodiak in the event of a major seismic event.

3.14.6 Biological Resources

The Proposed Action and cumulative actions would have minor incremental adverse impacts on ESA-listed species and other NMFS trust resources during in-water work by 1) increasing in-water and airborne noise during construction activities; 2) causing short-term increases in turbidity; 3) removing structures and placing fill in areas occupied by invertebrate prey; and 4) causing a temporary reduction in food availability for larger fish, birds, and mammals. However, the net effect of the Proposed Action and cumulative actions (e.g., removal of Marginal Wharf) is a reduction of artificial in-water structures (including contaminated piles) and over-water cover, which benefits most biological resources in the long term.

3.14.7 Water Resources

The Proposed Action and cumulative actions would have minor adverse impacts from increased turbidity and contamination risk during construction activities. Additionally, some of the proposed projects would add additional impervious surfaces and have the potential to increase stormwater runoff; however, the increase is relatively small when compared with the size of the watershed and

is not likely to have a significant adverse effect. Incremental minor adverse impacts to wetlands would occur from the cumulative actions. Wetland habitat functions as flood control, water purification, and erosion control. Given the small size of the impacted wetlands, reduced wetland functioning would only contribute to minor adverse cumulative impacts. Effects of any cumulative action will be minimized through compliance with federal and state permitting processes, particularly permit approvals by USACE.

3.14.8 Cultural Resources

The Proposed Action together with cumulative projects would have no adverse impacts on cultural resources, as the actions would take place on previously disturbed areas.

3.14.9 Transportation

The Proposed Action would have minor beneficial impacts by expanding and improving berthing facilities at the cargo wharf. Construction would produce temporary and intermittent minor adverse impacts from the use of waterways and roads in the larger Proposed Action area to support construction activities.

3.14.10 Utilities, Infrastructure, and Services

The Proposed Action together with other cumulative actions would have no incremental adverse impacts on utilities. The projects would have a minor beneficial impact on emergency services by improving safety at Base Kodiak's waterfront.

3.14.11 Hazards and Hazardous Substances

The Proposed Action and cumulative actions would have minor to major beneficial impacts by improving safety at the cargo wharf. These projects would have minor adverse impacts from the handling of hazardous materials and waste during construction activities.

3.15 COMPARATIVE ANALYSIS

This section compares the impacts of the Proposed Action and No Action Alternative.

3.15.1 Proposed Action (Preferred Alternative): Repair and Construct Extended Cargo Wharf

The Proposed Action would result in temporary impacts from construction on biological resources, air quality, geology and soils, noise and vibration, and water quality. Implementation of this alternative would also result in minor long-term impacts to biological resources, air quality, and water quality. Additionally, the Proposed Action would result in substantial long-term beneficial impacts to public safety.

This alternative would satisfy the purpose and need for the Proposed Action to replace and enhance the mission support previously provided by the USCGCs Alex Haley and Douglas Munro (U.S. Coast Guard High Endurance Cutter [WHEC] vessels) in the District 17 AoR and to provide adequate infrastructure and support facilities to improve mission effectiveness necessary to accommodate the overall expected increase in personnel and families.

The Proposed Action's potential impacts on biological resources and water quality will be minimized through implementation of BMPs and mitigation measures and is considered less than significant.

3.15.2 No Action Alternative

The No Action Alternative would have fewer impacts than the Proposed Action; however, this alternative would not satisfy the need for the Proposed Action. While the No Action Alternative would not have impacts on biological resources, cultural resources, geology and soil, noise and vibration, hazardous materials, hydrology and water quality, the coastal zone, transportation, utilities, and visual resources, it would have a long-term impact on safety. Although this alternative is more environmentally benign than the Proposed Action, the No Action Alternative cannot be selected as it would not meet the Proposed Action's purpose and need.

3.16 ENVIRONMENTAL SIGNIFICANCE OF THE PROPOSED ACTION

The Proposed Action would impact the following resource areas: biological resources, air quality and greenhouse gases, geology and soils, noise and vibration, and water quality. These effects would be less than significant. In addition, the Proposed Action would have long-term beneficial impacts on public safety.

The Proposed Action will be coordinated with the following federal and state regulatory agencies, to ensure compliance with applicable regulations: USACE, USFWS, NMFS, ADEC, SHPO, NPS, and ADF&G.

The Proposed Action is needed to replace and enhance the mission support previously provided by the USCGCs Alex Haley and Douglas Munro (WHEC vessels) in the District 17 AoR to allow USCG to continue fulfilling its mission. The environmental impacts associated with the Proposed Action are generally minor and short term. The impact analysis in Section 3 provides evidence that the Proposed Action would not cause a significant impact on the environment.

4. LIST OF STAKEHOLDERS CONTACTED

Table 10 presents stakeholders contacted during the public scoping process for this EA.

Table 10. List of Stakeholders Contacted

List of Stakeholders Contacted	
Akhiok-Kaguyak, Inc.	Kodiak Salmon Work Group
ADEC Division of Water	Native Village of Afognak
ADF&G Division of Commercial Fisheries	Native Village of Larsen Bay, Larsen Bay Tribal Council
ADF&G Division of Wildlife Conservation	Native Village of Old Harbor
Alaska Department of Natural Resources, Division of Mining, Land, and Water	Native Village of Port Lions
City of Old Harbor Native Corporation Kodiak	Natives of Kodiak, Inc.
Cook Inlet Regional Citizens Advisory Council	Ouzinkie Native Corporation
Kodiak Audubon Society	Samson Tug and Barge
Kodiak Chamber of Commerce	Sun'aq Tribe of Kodiak
KEA	USACE, Alaska District
Kodiak Island Borough	USFWS, Marine Mammals Management, Alaska Region
Kodiak Regional Aquaculture Association	NOAA, NMFS, Alaska Region

KEA – Kodiak Electric Association
NMFS – National Marine Fisheries Service
NOAA – National Oceanic and Atmospheric Administration
USACE – United States Army Corps of Engineers
USFWS – United States Fish and Wildlife Service

5. LIST OF PREPARERS

5.1 UNITED STATES COAST GUARD

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Staff Member	Project Role
Raven Smith	Environmental Specialist, Contracting Officer Representative for NEPA Contract
Joseph McKenna	Architect/Project Manager

NEPA – National Environmental Policy Act

5.2 WESTON SOLUTIONS, INC.

101 West Benson Boulevard., Suite 312, Anchorage, AK 99503

Staff Member	Project Role	Education
Meghan Larson, PMP® Project Manager	Project Manager, Technical Editing and Review	B.A., Environmental Studies, Geography
Stacey Korsmo Senior Project Scientist	Technical Editing and Review, List of Agencies Contacted	M-AEST, Applied Environmental Science and Technology B.S., Biology
Tori Horsley Associate Scientist III	Land Use; Transportation; Infrastructure, Utilities, and Services	B.S., Marine and Environmental Science A.S., Marine Biology
Dan McCoy Senior Project Scientist	Water Resources	M.S., Zoology B.S., Biology
Kathleen Mittman Senior Project Scientist	Proposed Action and Alternatives; Comparative Analysis	M.S., Biology with Aquatic Ecology Minor B.S., Biology
Lori Groesbeck Senior Project Scientist	Introduction, Socioeconomics and Environmental Justice	B.S., Bioenvironmental Science

Notes:
A.S. — Associate of Science
B.A. — Bachelor of Arts
B.S. — Bachelor of Science
M-AEST — Master of Applied Environmental Science and Technology
M.S. — Master of Science
PMP® — Project Management Professional

5.3 SHANNON & WILSON

400 North 34th Street, Suite 100, Seattle, WA 98103

Staff Member	Project Role	Education
Katie Walter, PWS Vice President	Principal-in-Charge, Technical Editing	B.A., Botany B.S., Psychology
Amy Summe, PWS Senior Biologist/Permit Specialist	Air Quality, Noise, Biological Resources, and related discussions	B.S., Zoology B.S., Environmental Science
Merci Clinton, PWS, MSES Senior Biologist/Permit Specialist	Biological Resources, and related discussions	B.S., Marine Biology M.S., Sustainability and Environmental Management
Meg Strong Senior Consultant, Geologist/Hydrogeologist	Hazards and Hazardous Substances	M.S., Exploration Geology B.S., Applied Geology
Ryan Peterson Environmental Engineer	Hazards and Hazardous Substances	B.S., Chemical Engineering M.S., Environmental Engineering
Thomas Keatts Geotechnical Engineer	Geology and Soils	B.S., Geology MEng, Civil Engineering

Notes:
A.S. — Associate of Science
B.A. — Bachelor of Arts
B.S. — Bachelor of Science
MEng — Master of Engineering
M.S. — Master of Science
PWS — Professional Wetland Scientist

5.4 HISTORICAL RESEARCH ASSOCIATES

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Staff Member	Project Role	Education
Matthew Sneddon	Section 106 assessment and coordination EA: Cultural and Historic Resources; Visual Resources	Ph.D., History M.A., History B.A., History B.S., Mechanical Engineering

Notes:
A.S. — Associate of Science
B.A. — Bachelor of Arts
B.S. — Bachelor of Science
Ph.D. — Doctor of Philosophy

6. REFERENCES

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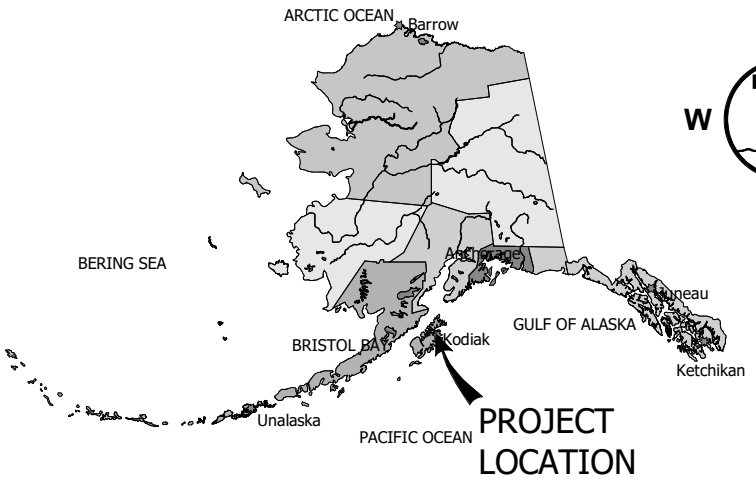
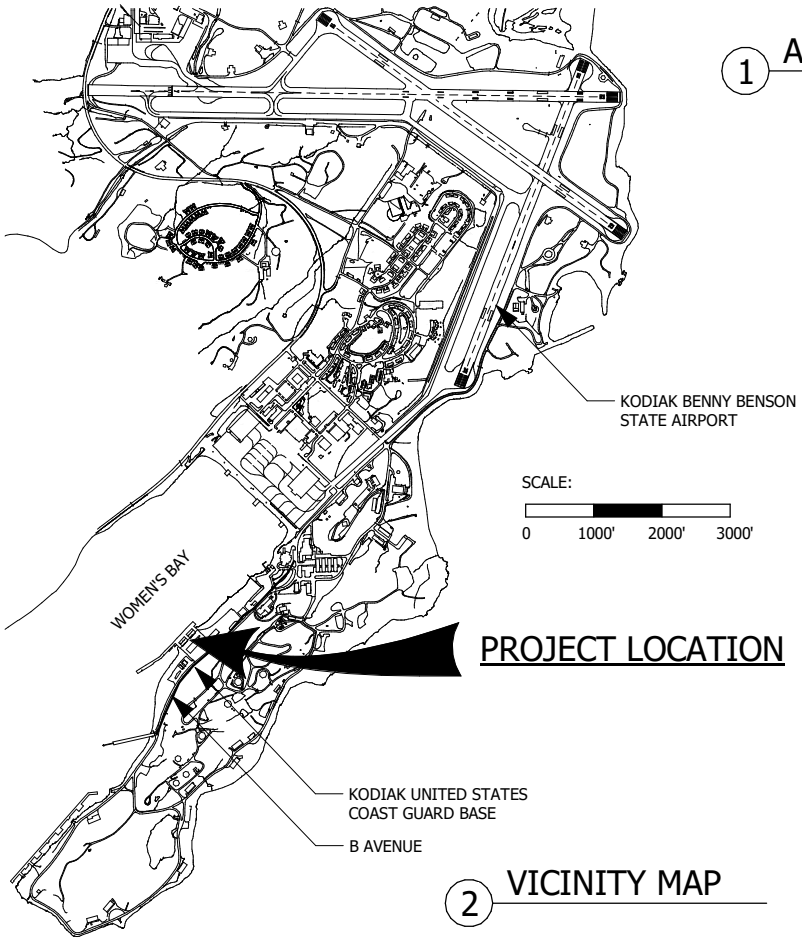
APPENDIX A

PROJECT DESIGN DOCUMENTS



1 ALASKA MAP



2 VICINITY MAP

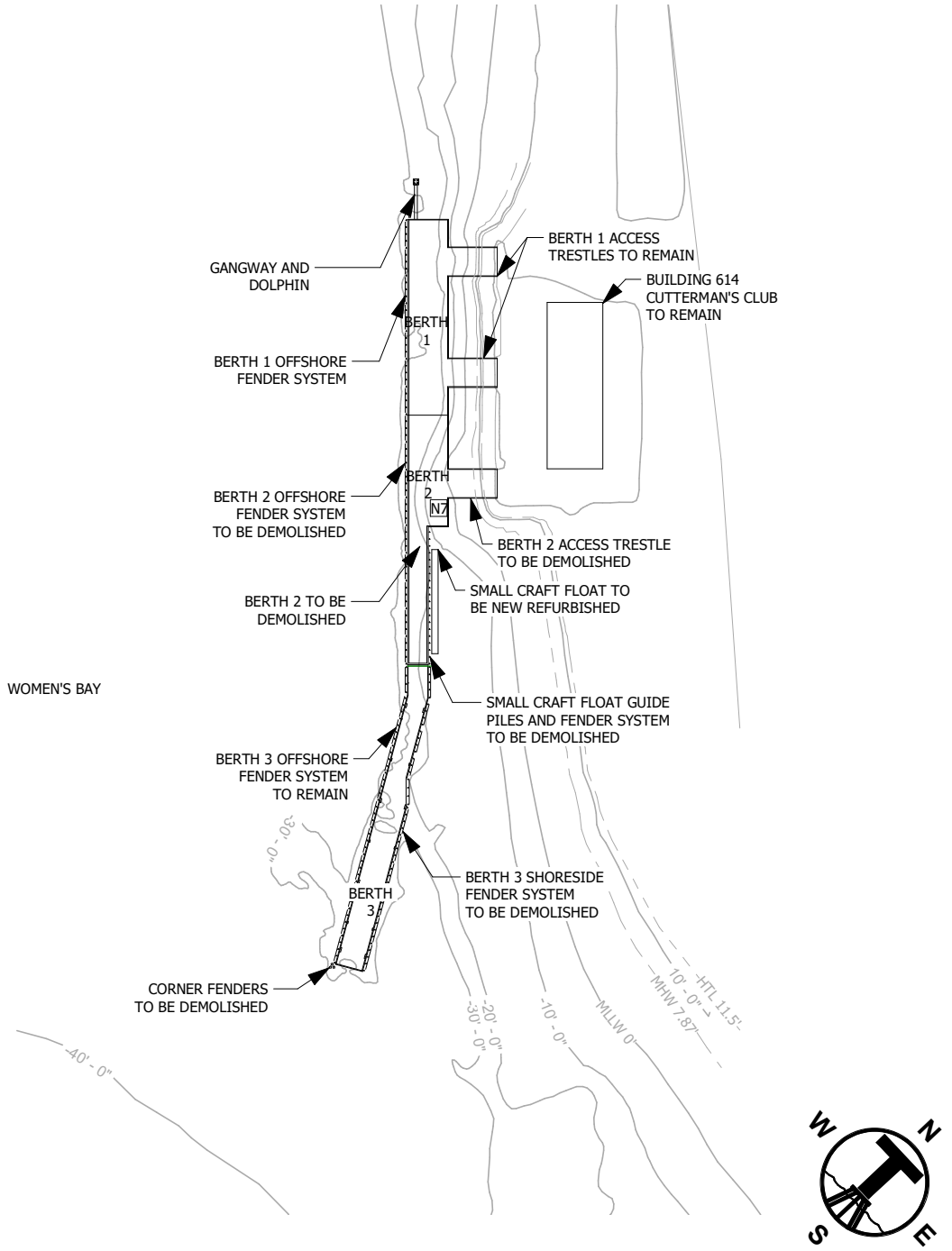
TIDAL DATA	
HTL	11.5
MHHW	8.77
MHW	7.87
MLW	1.10
MLLW	0.00
LAT	-2.62

PURPOSE:
UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK

COVER SHEET

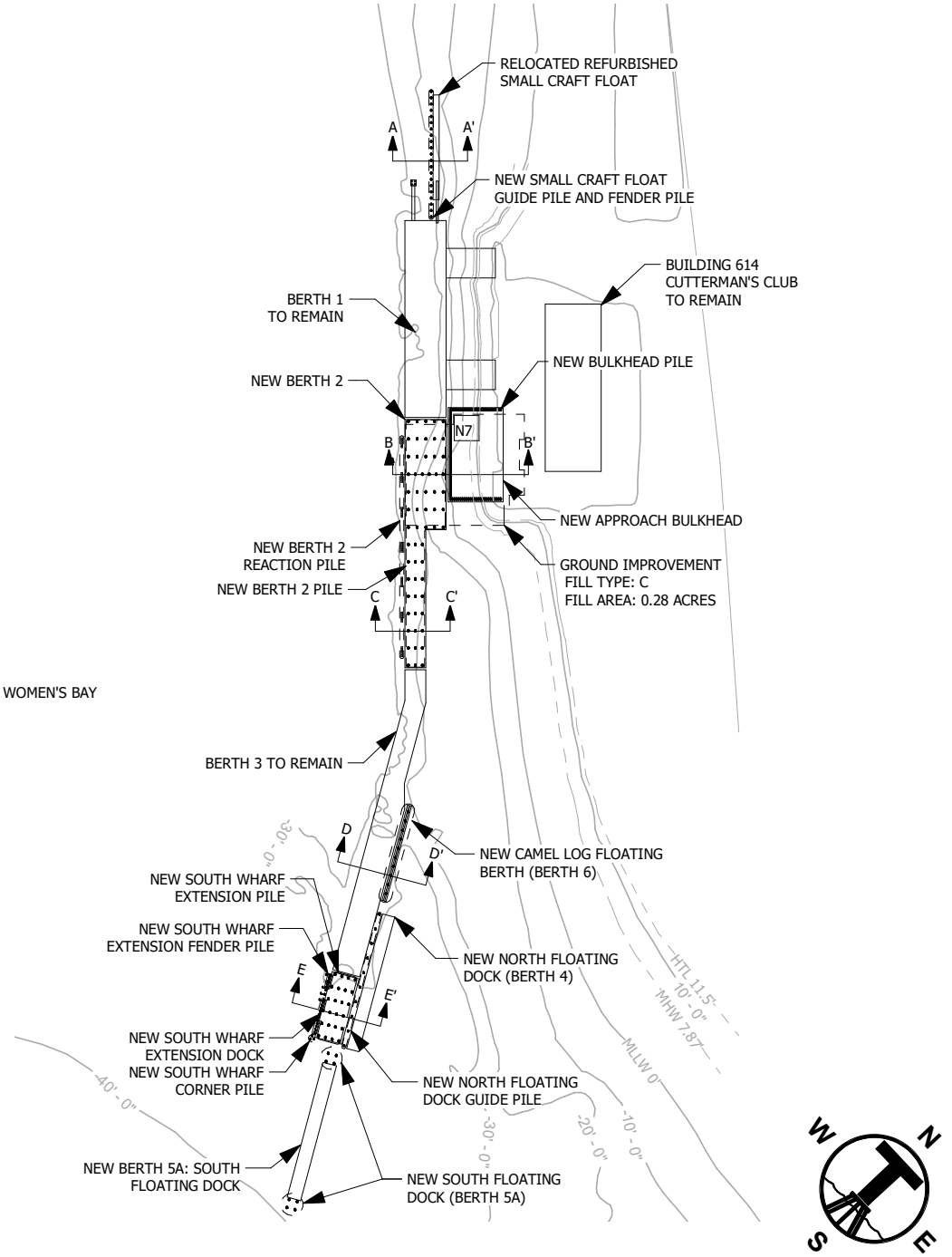
JOB NO. 23-002

PROPOSED: TURNAGAIN
AT: KODIAK, ALASKA
WATERWAY: WOMEN'S BAY
APPLICATION BY: TURNAGAIN
DATE: FEBRUARY,13 2024
SHEET: 1



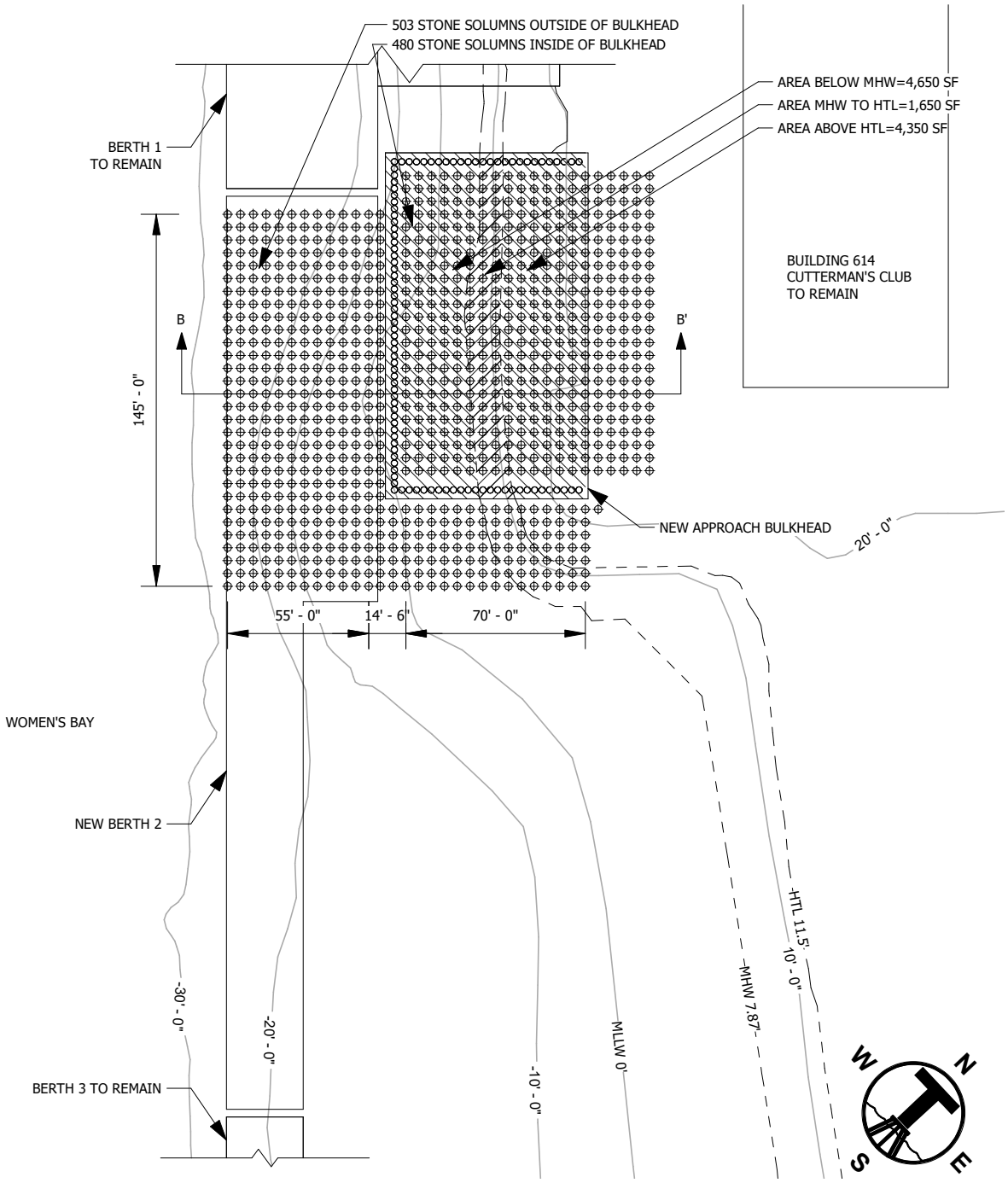
1 EXISTING CONDITION SITE PLAN
1" = 250'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	EXISTING CONDITION SITE PLAN JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 2



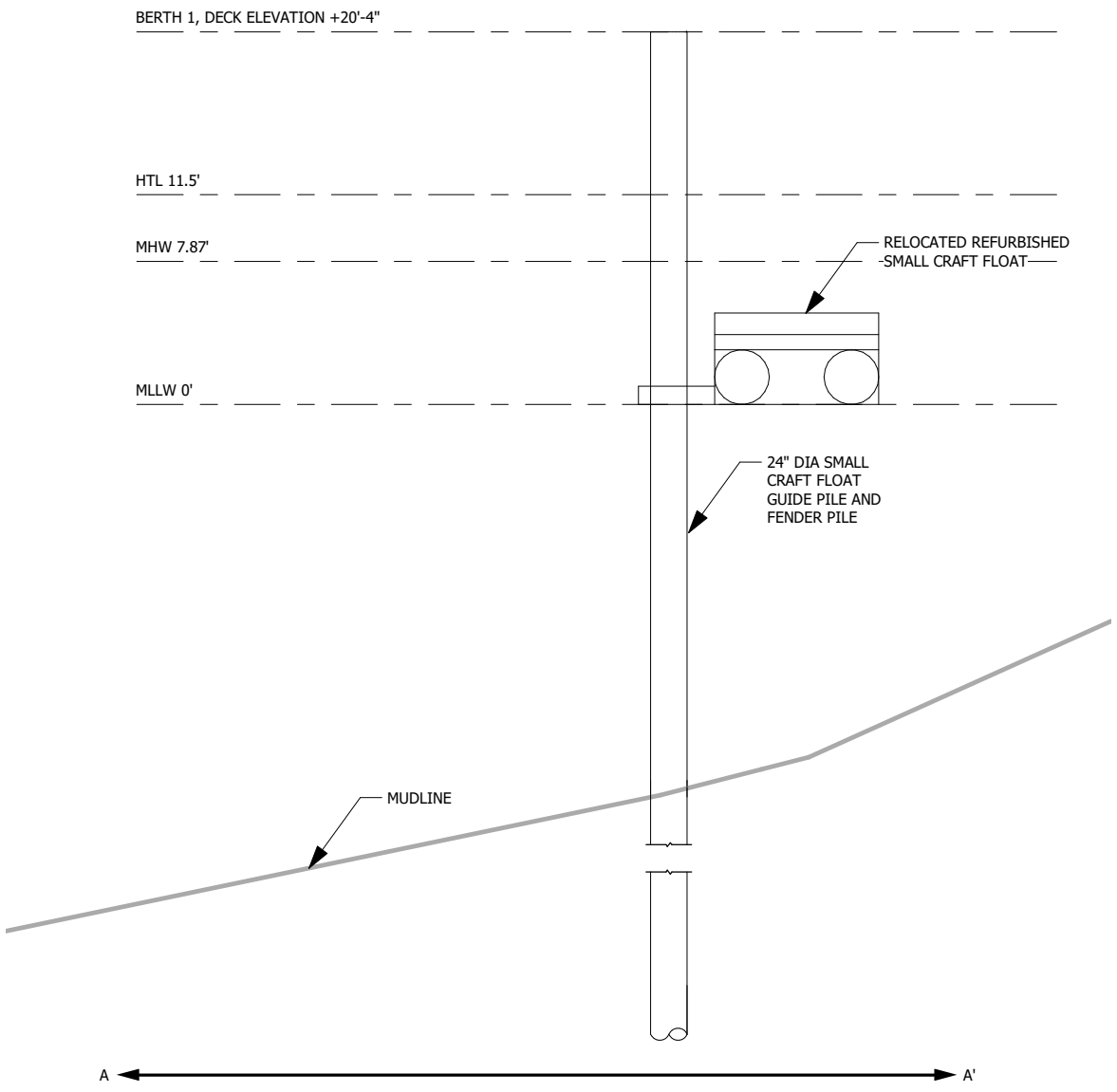
1 PROPOSED SITE PLAN
1" = 250'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	PROPOSED SITE PLAN JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 3



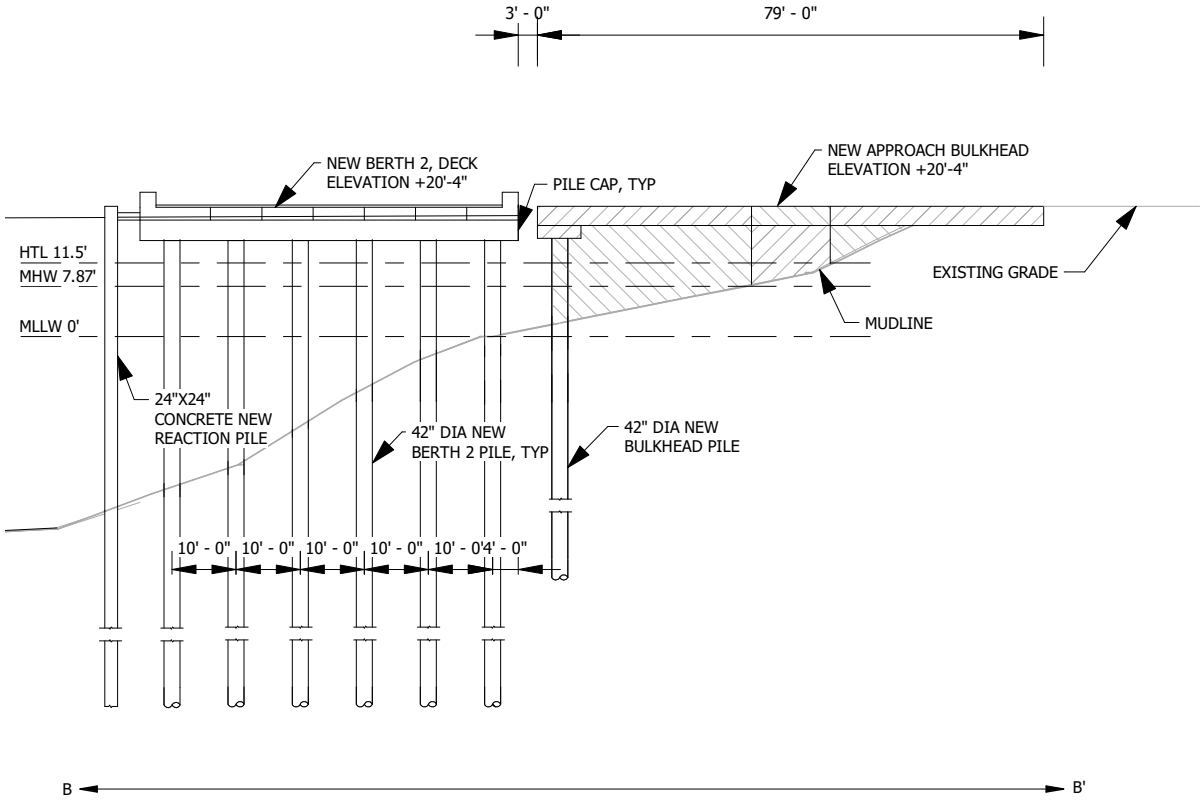
1 PROPOSED GROUND IMPROVEMENT
1/64" = 1'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	PROPOSED GROUND IMPROVEMENT PLAN JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 4



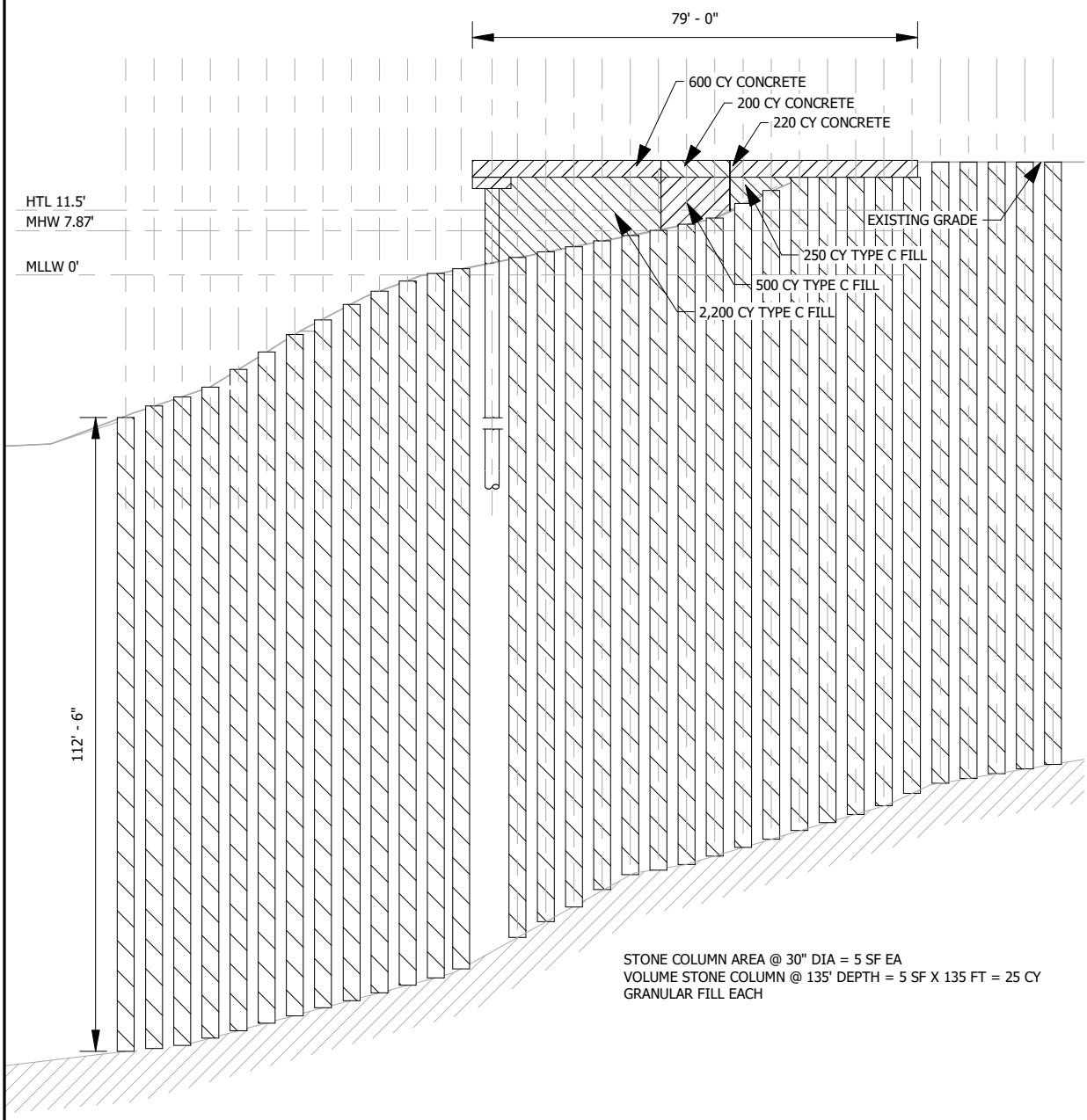
1 A-A' SECTION
1" = 10'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	A-A'(SMALL CRAFT FLOAT) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 5



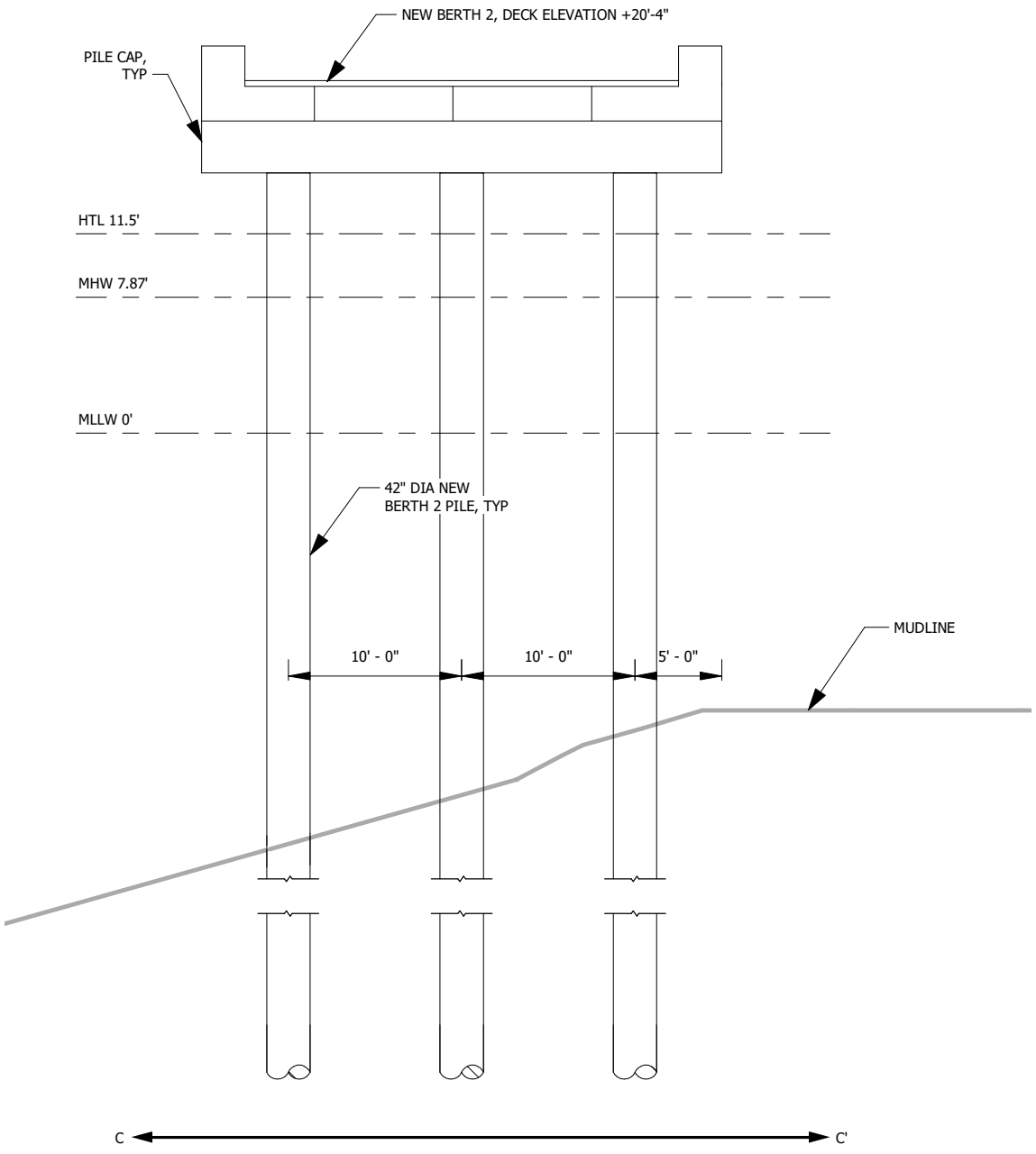
1 B-B' (1) SECTION
1" = 30'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	B-B'(NEW BERTH 2 AND APPROACH BULKHEAD) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 6



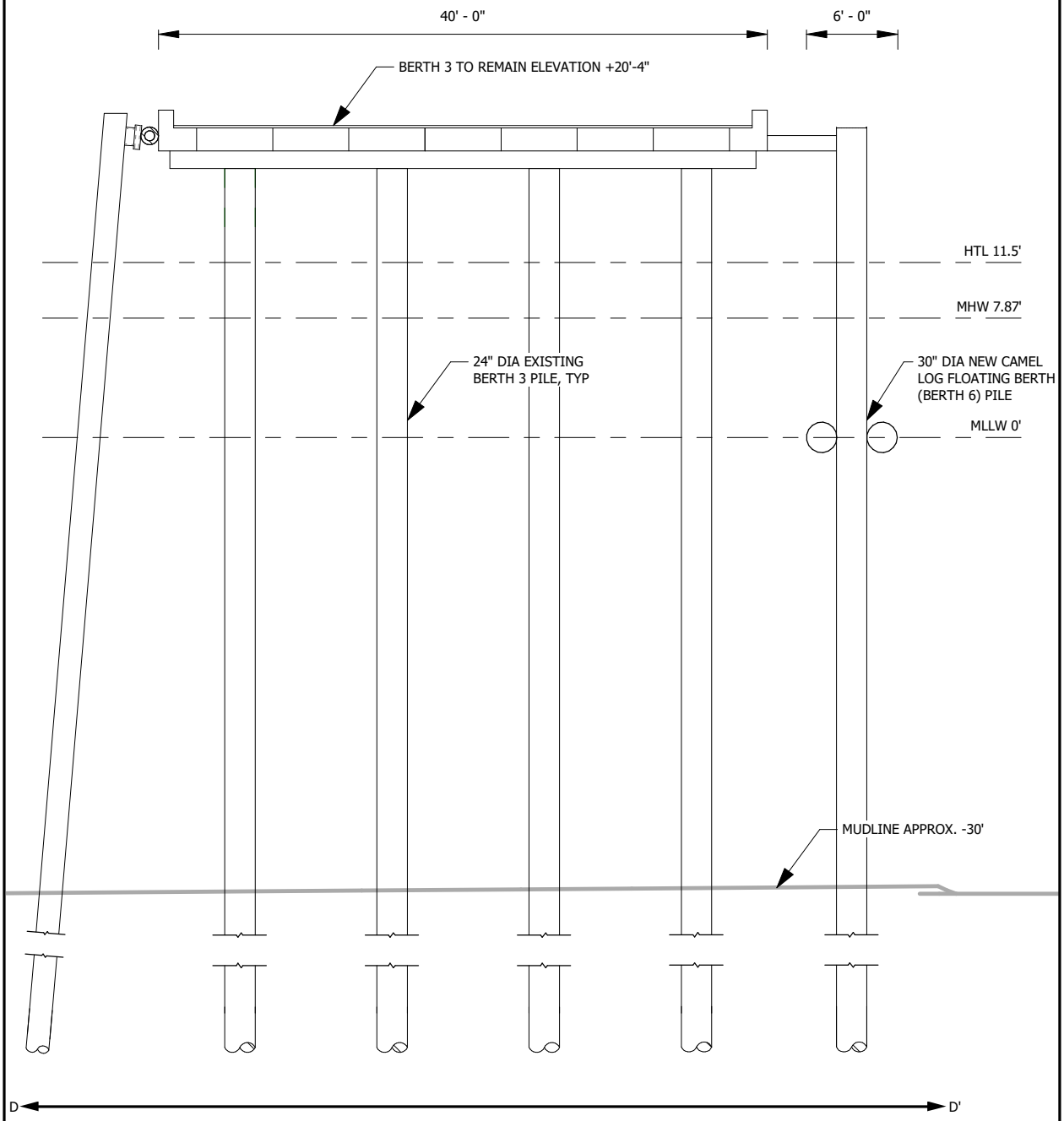
1 B-B' (2) SECTION
1" = 30'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	B-B'(GROUND IMPROVEMENT) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 7



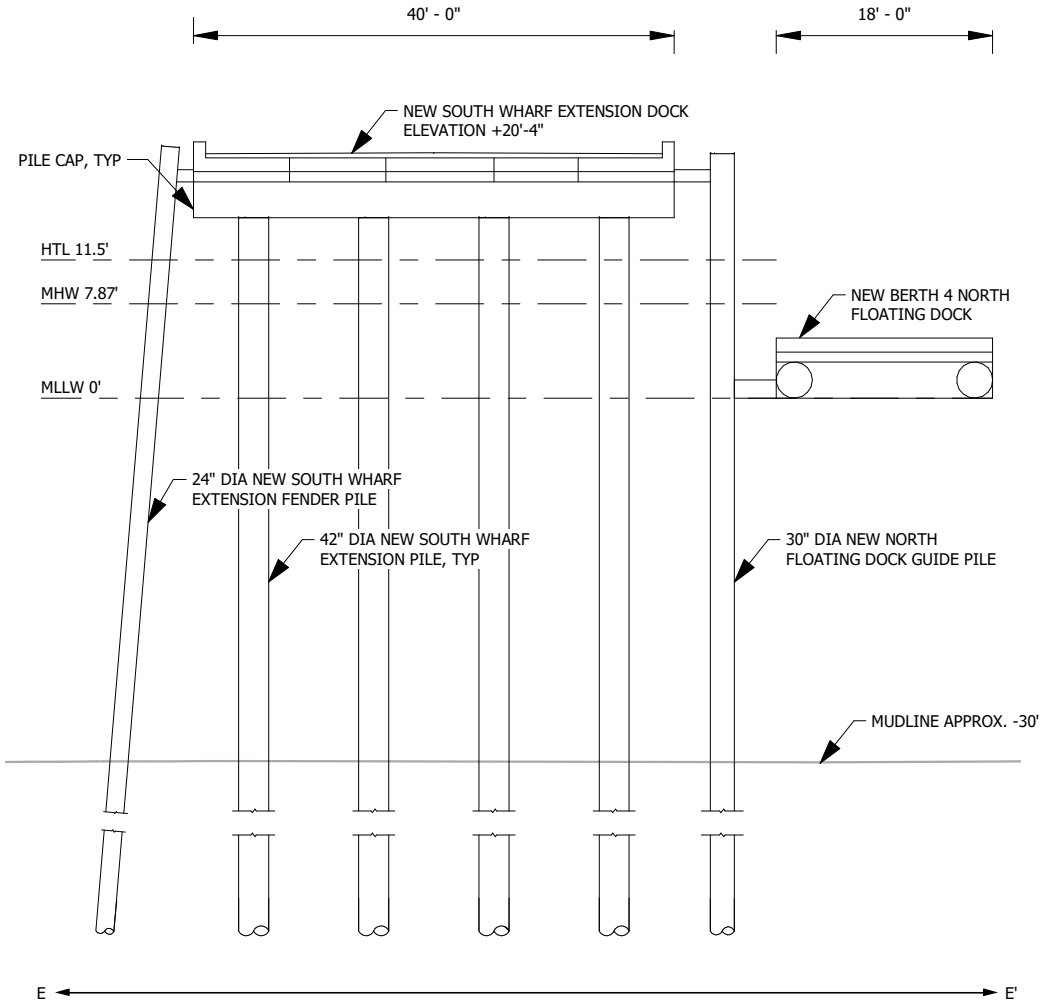
1 C-C' SECTION
1" = 10'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	C-C'(NEW BERTH 2) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 8



1 D-D' SECTION
3/32" = 1'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	D-D'(BERTH 3 AND NEW BERTH 6) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 9



1 E-E' SECTION
1/16" = 1'-0"

PURPOSE: UNITED STATES COAST GUARD SECTOR SEATTLE CONSTRUCT OPC/FRC HOMEPORT PHASE II BASE KODIAK	E-E'(NEW SOUTH WHARF EXTENSION AND BERTH 4) SECTION JOB NO. 23-002	PROPOSED: TURNAGAIN AT: KODIAK, ALASKA WATERWAY: WOMEN'S BAY APPLICATION BY: TURNAGAIN DATE: FEBRUARY,13 2024 SHEET: 10