Draft Environmental Assessment for Seagoing Buoy Tender Mooring and Structural Pier Upgrades at U.S. Coast Guard Base Honolulu, Hawaii

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Please provide any comments related to the technical sufficiency and adequacy of the EA to Mr. Aaron Goldschmidt at aaron.goldschmidt@wsp.com. Comments must be received no later than April 22, 2024.

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page)**:**
In 2022, the USCG identified the need for an extension to Berth G to create permanent berthing for the second WLB that is returning from mid-life maintenance availability. The Draft EA evaluates the USCG proposal to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 feet eastward from Berth G. This extension would allow for mooring of the second WLB, including fenders, mooring hardware, and services. The USCG would also demolish and dispose of the existing floating dock currently sited at Berth G, to include removal of foundations and piles, but excluding the floating gangway which may be reused. In addition to the Proposed Action, the Draft EA also considered two alternatives: an option to construct a new precast concrete floating dock that would attach to the new fixed Pier G, occupying space off Berth F; and construction of a small pier extension to fill a gap which would arise between Berth F and the new Berth G extension.

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ACRONYMS AND ABBREVIATIONS

µPa	micropascal
µPa^{2}s	micropascal squared per second
ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
BA	Biological Assessment
BMP	best management practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cm	centimeter
CO	carbon monoxide
COMDTINST	Coast Guard Commandant Instruction
CPB	Coastal Patrol Boat
CWA	Clean Water Act
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
D14	Fourteenth Coast Guard District
dB	decibel
DHS	Department of Homeland Security
DLNR	Department of Land and Natural Resources
DLNR-DAR	Department of Land and Natural Resources, Division of Aquatic Resources
DO	dissolved oxygen
DTH	down-the-hole
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FEP	Fishery Ecosystem Plan
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
FR	Federal Register
FRC	Fast Response Cutter
HAPC	Habitat Area of Particular Concern
HAR	Hawaii Administrative Rules
HDOT	Hawaii Department of Transportation
HIDOH	Hawaii Department of Health
HIDOH-CAB	Hawaii Department of Health, Clean Air Branch

ACRONYMS AND ABBREVIATIONS (CONTINUED)

HRS	Hawaii Revised Statutes
kHz	kilohertz
LOS	Level of Service
m^2	square meter
MMPA	Marine Mammal Protection Act
MRCI	Marine Research Consultants, Inc.
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MUS	Management Unit Species
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NH_4	ammonium
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_3	nitrate
NOAA	National Oceanic and Atmospheric Administration
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSC	National Security Cutter
O_3	ozone
OCCL	Office of Conservation and Coastal Planning
OEQC	Office of Environmental Quality Control
OPSD	Office of Planning and Sustainable Development
ORMP	Ocean Resources Management Plan
P.L.	Public Law
Pb	lead
PIFSC	Pacific Islands Fisheries Science Center
PIRO	Pacific Islands Regional Office
PM	particulate matter
PM_{10}	particulate matter 10 microns or less
$PM_{2.5}$	particulate matter 2.5 microns or less
ppm	parts per million
PSO	Protected Species Observer
PTS	permanent threshold shift
RHA	Rivers and Harbors Act
RMS	root mean square

ACRONYMS AND ABBREVIATIONS (CONTINUED)

ROG	reactive organic gases
SELcum	cumulative sound exposure level
sf^2	square foot
SFA	Sustainable Fisheries Act
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMA	Special Management Areas
SO_2	sulfur dioxide
SO_x	sulfur oxides
SPL	sound pressure level
SWPPP	Stormwater Pollution Prevention Plan
TN	Total Nitrogen
TP	Total Phosphorus
TSS	total suspended solids
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WLB	Seagoing Buoy Tender
WPB	Island-Class Patrol Boat
WPFMC	Western Pacific Fisheries Management Council

SECTION 1
PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 U.S. Code [USC] §4321 et seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508); Department of Homeland (DHS) Security Management Directive 023-01, Rev 01; DHS Instruction Manual 023-01-001-01, Rev 01; and Coast Guard Commandant Instruction (COMDTINST) 5090.1, *Environmental Planning Policy*. This section specifies the purpose and need for the proposed in-water pier and fendering and overwater decking upgrades at U.S. Coast Guard (USCG) Base Honolulu, Hawaii.

1.2 BACKGROUND

The USCG is proposing the extension of an existing berth at Base Honolulu to accommodate the anticipated return of a second 225-foot Seagoing Buoy Tender (WLB) from its off-site mid-cycle assessment. Additionally, the USCG is considering a new floating dock to better accommodate each of the existing Fast Response Cutters (FRCs) at Base Honolulu.

In 2015, the USCG completed an EA and Biological Assessment (BA) for the proposed homeporting of two new National Security Cutters (NSCs) and associated infrastructure improvements at Base Honolulu (USCG 2015). The EA and BA analyzed the potential impacts of proposed shore-side facility development and mooring configurations for the new NSCs. This included an analysis of other ongoing vessel assignment actions including decommissioning of Island-Class

Two NSCs were homeported at Base Honolulu in 2019 following implementation of required shoreside and in-water improvements evaluated in the 2015 EA and 2016 Supplemental EA.

Patrol Boats (WPBs), stationing of FRCs, and the return of one or two previously assigned WLBs from their off-site mid-cycle assessment. The 2015 EA identified three alternatives that addressed shore-side facility and berthing requirements. The Preferred Alternative (Alternative A), which was ultimately selected by the USCG, focused on NSC mooring at Berths A/B and D on the east side of Base Honolulu. The Preferred Alternative also considered three FRCs mooring at Berths B and C, one WLB mooring at Berth E, and two WPBs mooring at Berth G and its attached floating dock, respectively.

In 2016, the USCG prepared a Supplemental EA to more specifically address the in-water work associated with accommodating the NSCs at Berths A/B and D (USCG 2016).

Two 225-foot WLBs are homeported at Base Honolulu. One of these vessels has been undergoing an off-site mid-cycle assessment and will be returning shortly, creating a need for a new berth.

In 2022, with the anticipated return of the second WLB, the USCG has identified a new need to extend to Berth G. The Coast Guard has also identified a need for a new floating dock to better accommodate each of the existing FRCs at Base Honolulu. These in-water modifications closely match an alternative that was previously analyzed in the 2015 EA; however, this alternative was neither selected for execution in the 2015 EA nor identified as preferred during previous agency consultations. Due to the age of the baseline environmental information supporting the 2015 EA, the USCG has prepared this new EA and associated BA. While these documents may incorporate elements of the 2015 EA and the 2016 Supplemental EA, this new EA and BA focuses on the development of Berths E-G at Base Honolulu.

This EA provides additional environmental analysis related to implementation of the Proposed Action and its alternatives, including the No-Action Alternative. This information and analysis will serve as the basis for a USCG decision regarding the Proposed Action.

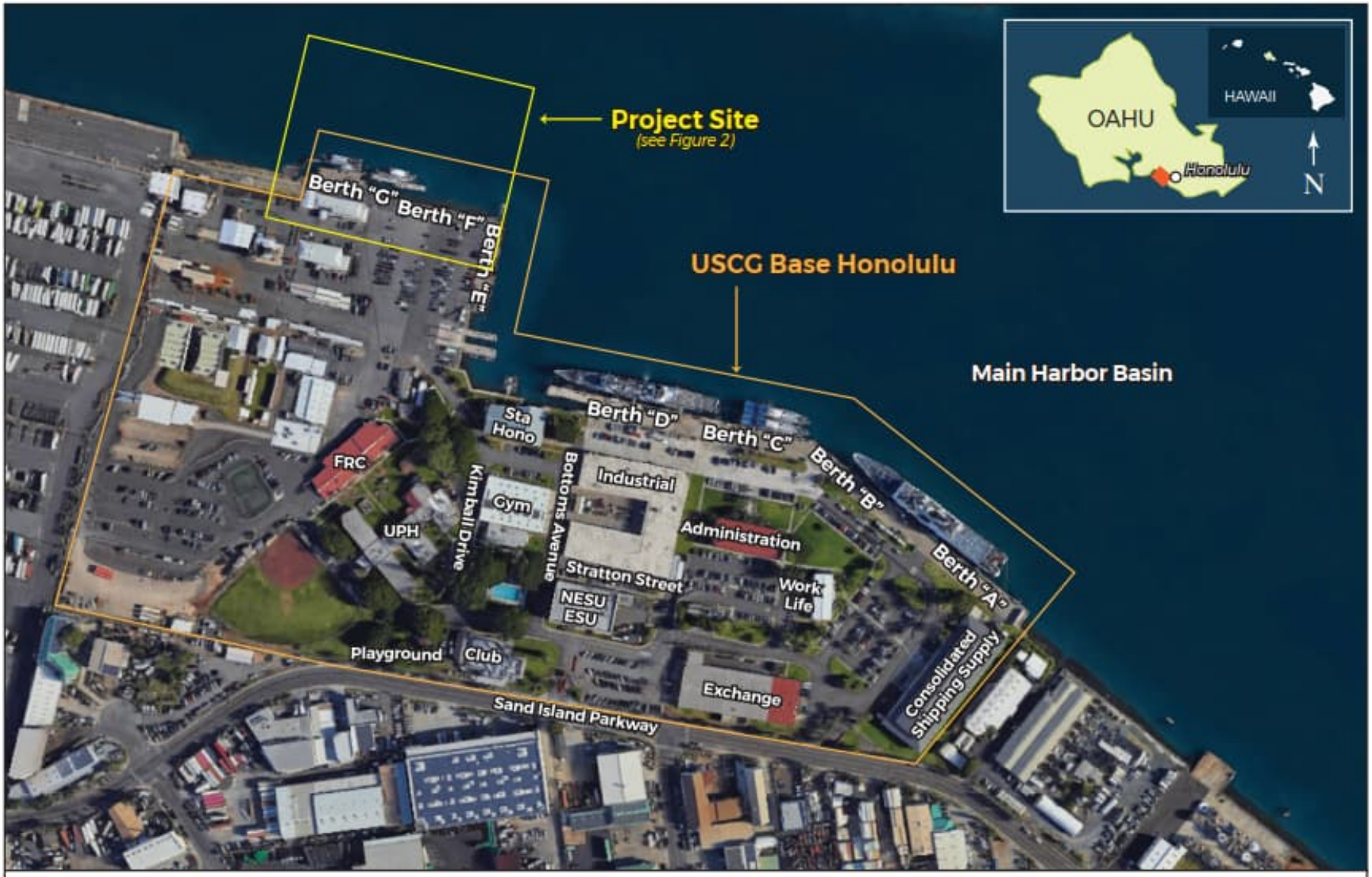


Figure 1: USCG Base Honolulu

If the Proposed Action would result in a significant impact to the environment, preparation of an Environmental Impact Statement (EIS) would be required. If no significant impacts would occur, a Finding of No Significant Impact (FONSI) would be appropriate.

1.3 HOMEPORTING OVERVIEW

1.3.1 USCG Mission

The USCG is the U.S.'s oldest maritime agency. The USCG area of responsibility includes over 95,000 miles of U.S. coastlines, waterways, and harbors; more than 3.36 million square miles of Exclusive Economic Zone and U.S. territorial seas; and international waters or other maritime regions of importance to the U.S. The USCG is a multi-missioned military and maritime service within the DHS.

The USCG's 11 fundamental missions are ports, waterways, and coastal security; drug interdiction; aids to navigation; search and rescue; living marine resources; marine safety; defense readiness; migration interdiction; marine environmental protection; ice operations; and other law enforcement. Examples of these fundamental missions include the following:

- Protect all U.S. ports, inland waterways, harbors, navigable waters, the Great Lakes, territorial seas, contiguous waters, customs waters, coastal seas, littoral areas, the U.S. Exclusive Economic Zone, oceanic regions of the U.S. national interest, sea lanes to the U.S., U.S. maritime approaches, and high seas surrounding the nation;
- Protect the U.S. Marine Transportation System, which is comprised of intermodal connections, vessels, vehicles, and system users, as well as all federal maritime navigation systems;
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction;
- Ensure that U.S. military assets can be rapidly supplied and deployed by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces;
- Coordinate efforts and intelligence with federal, state, and local agencies;

- Respond to calls of distress, whether from commercial or recreational boats or downed aircraft;
- Support programs to ensure that boats are safe for public use and contain appropriate safety equipment;
- Protect against illegal fishing and destruction of living marine resources; and
- Prevent and respond to oil and hazardous material spills – both accidental and intentional.

1.3.2 USCG District 14

In 1939, the Fourteenth Coast Guard District (D14) was established in Honolulu with 230 personnel. Today, more than 1,150 active duty, 150 reserve, 80 civilian, and 400 auxiliary men and women support D14. The area of responsibility for D14 includes more than 12.2 million square miles of land and sea, with units on Oahu, Maui, Kauai, Island of Hawaii, and in American Samoa, Saipan, Guam, Singapore, and Japan. The District Commander oversees 25 operational units ashore and afloat throughout the Pacific. These operational units regularly perform missions related to maritime safety, protection of natural resources, maritime security, homeland security, and national defense (USCG 2022).

D14 personnel conduct a variety of daily operations in support of the USCG's statutory missions, including search and rescue, coast and Pacific Ocean patrol to enforce safety and fisheries regulations, safety and compliance inspections and exams on commercial vessels and waterfront facilities, and national strategic defense and critical infrastructure protection. D14 personnel enforce federal laws on the high seas and navigable waters of the U.S., including the territorial seas, by conducting illegal alien and drug interdiction and protecting living marine resources by managing a maritime environmental protection program aimed at preventing, detecting, and controlling pollution in Hawaii's waters and throughout the Pacific. Personnel also maintain navigation aids such as buoys and harbor entrance day boards and administer a boating safety program (in concert with the Coast Guard Auxiliary).

1.3.3 Base Honolulu

Base Honolulu is a multi-mission facility currently equipped with the following vessel inventory:

- Two 87-foot WPBs;
- Two 225-foot WLBs;
- Three 154-foot FRCs; and
- Two 418-foot NSCs.

Although the USCG carries out numerous missions from Base Honolulu, its primary mission is distress response. Fulfillment of this mission includes training personnel, maintaining awareness of emergent distress through lookout activities and communications watches, and responding to distress situations. Secondary missions include safety inspections, security and law enforcement patrols (including fisheries enforcement activities), and providing initial pollution response.

Base Honolulu occupies approximately 40.76 acres on Sand Island in Honolulu (USCG 1992). Sand Island is located along the southern border of the Honolulu Harbor, south of downtown Honolulu, and is linked to downtown Honolulu by the Sand Island Parkway which bridges the Kalihi Channel and Kapalama Basin (refer to Figure 1). Mooring facilities are maintained along the entire northeast property limit of the Base Honolulu; the harbor opens to Honolulu Channel to the east. The wharf design along the northeastern perimeter of Base Honolulu includes seven berths.

1.4 PURPOSE OF THE PROPOSED ACTION

The two-pronged *purpose* of the Proposed Action is to accommodate the anticipated return of a second 225-foot WLB from its off-site mid-cycle assessment and to better accommodate each of the existing FRCs at Base Honolulu.

1.5 NEED FOR THE PROPOSED ACTION

As described in Section 1.1, *Introduction*, the previous homeporting of two NSCs at Base Honolulu modified one of the existing WLB berths for NSC use. The overarching *need* for the Proposed Action is to upgrade the existing waterfront facilities at Base Honolulu to support both WLBs and NSCs simultaneously.

The USCG is also considering the construction of a floating pier (connected by a small dolphin) that could be used as another berth for one of the three existing FRCs at Base Honolulu. The *need* for this floating pier is to avoid inefficient temporary berthing options (i.e., stacked or nested) when all the three FRCs are in berth at Base Honolulu. Periods of maintenance and on/offloading would otherwise require shifting the berth positions of the FRCs, increasing overall downtime of the vessels.

1.6 AGENCY AND PUBLIC INVOLVEMENT PROCESS

On December 19, 2022, scoping letters were distributed by the USCG to solicit input on the project from interested agencies and stakeholders. The notices informed recipients of a 30-day period during which comments could be submitted on key issues that relevant stakeholders felt should be addressed during the environmental review process. Further, a Notice of Intent to prepare an EA was published in the *Honolulu Star-Advertiser* on January 8, 2023 to solicit additional input from the public and other interested stakeholders. A Notice of Availability for the Draft EA was published in the *Honolulu Star-Advertiser* on March 23, 2024 announcing the availability of the EA for review and a timeline for submitting comments on the adequacy of the environmental impact analysis.

As part of the project planning process, USCG worked closely with the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), and Hawaii Department of Land and Natural Resources (DLNR) Division of Aquatic Resources to identify opportunities and constraints related to project design. USCG's goal is to avoid or minimize adverse environmental impacts to the extent feasible while maintaining the project's viability and its ability to meet the purpose and need.

1.7 SUMMARY OF ENVIRONMENTAL STUDY REQUIREMENTS

This EA has been prepared in accordance with DHS Management Directive 023-01, Rev 01; DHS Instruction Manual 023-01-001-01, Rev 01; and COMDTINST 5090.1, *Environmental Planning Policy*. This EA complies with NEPA (42 USC §4321 et seq.) and the CEQ Regulations for Implementing NEPA dated May 20, 2022 (40 CFR Parts 1500-1508). This act and other facets of the environmental impact assessment process are described below.

1.7.1 National Environmental Policy Act

NEPA requires that federal agencies consider potential environmental consequences of proposed actions that have a federal nexus. The law's intent is to protect, restore, and enhance the environment through well-informed federal decisions. The CEQ was established under NEPA for the purpose of implementing and overseeing federal policies as they relate to this process. The CEQ is responsible for developing procedures for federal agency implementation of NEPA. These procedures were initially promulgated in 1971 as guidelines and were then issued as regulations in 1978. In May 2022, the CEQ issued a final rule to amend certain provisions of its NEPA implementing regulations. These amendments related to addressing the purpose and need of a proposed action, agency NEPA procedures for implementing CEQ's NEPA regulations, and the definitions of "effects." These regulations specify that an EA be prepared to:

- Briefly provide sufficient analysis and evidence for determining whether to prepare an EIS or a FONSI;
- Aid in an agency's compliance with NEPA when no EIS is necessary; and
- Facilitate preparation of an EIS if one is necessary.

Further, to comply with other relevant environmental requirements (e.g., the Safe Drinking Water Act, Endangered Species Act [ESA], National Historic Preservation Act [NHPA], Coastal Zone Management Act [CZMA], etc.) in addition to NEPA, the decision-making process for the Proposed Action involves a thorough examination of all environmental issues pertinent to the Proposed Action.

1.7.2 Endangered Species Act

The federal ESA of 1973 (16 USC §§1531–1544, as amended) established measures for the protection of plant and animal species that are federally listed as threatened and endangered, and for the conservation of habitats that are critical to the continued existence of those species. Federal agencies must evaluate the effects of their proposed actions through a set of defined procedures, which can include the preparation of a BA and can require formal consultation with USFWS and/or NMFS under Section 7 of the ESA.

On September 8, 2023, the USCG met informally with the NMFS Pacific Islands Regional Office (PIRO) to identify concerns regarding project implementation as related to federally listed species and federally designated critical habitat. Following this discussion, the USCG developed proposed best management practices (BMPs) and prepared a BA to describe the potential effects of the Proposed Action on federally listed species and federally designated critical habitat. In a letter dated January 12, 2024, NMFS concurred that "all effects of the proposed action are either discountable or insignificant" (see Appendix C).

1.7.3 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended (16 USC §1801 et seq.) established: 1) a fishery conservation zone between the territorial seas of the U.S. and 200 nautical miles offshore; 2) an exclusive U.S. fishery management authority over fish within the fishery conservation zone (excluding highly migratory species); 3) regulations for foreign fishing within the fishery conservation zone through international fishery agreements, permits, and import prohibitions; and, 4) national standards for fishery conservation and management and eight regional fishery management councils to apply those national standards in fishery management plans.

Congress enacted the 1996 amendments to the Act, known as the Sustainable Fisheries Act (SFA) (Public Law [P.L.] 104-297), to address the substantial decline in fish stocks caused by direct and indirect habitat loss. The SFA requires that agencies consult with the NMFS concerning actions that may adversely impact Essential Fish Habitat (EFH). Per the EFH provision, USCG must consult with

NMFS if there "may be adverse effect to EFH" from implementation of a proposed action.

During the meeting on March 1, 2023 with the NMFS PIRO Habitat Conservation Division the USCG also discussed concerns regarding project implementation as related to EFH. Following this discussion, the USCG developed proposed BMPs to minimize impacts on corals and federally listed species in the surrounding area and identified applicant-proposed minimization measures to offset any impacts to sensitive EFH resources. An EFH Assessment has been prepared to describe the effects of the Proposed Action on EFH and was submitted for review on October 31, 2023. NMFS responded on November 8, 2023 and initiated a discussion with the USCG regarding potential translocation and other offset for potential impacts to corals.

1.7.4 Clean Air Act and Conformity Requirements

The Clean Air Act (CAA) (42 USC §§7401-7671, as amended) provided the authority for the U.S. Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. These federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAA also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality to eliminate NAAQS violations. Under the CAA Amendments of 1990, federal agencies are required to determine whether their undertakings are in conformance with the applicable SIP and demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. The USEPA has set forth regulations in 40 CFR Part 51, Subpart W which require the proponent of a proposed action to perform an analysis to determine if implementation of the action would conform to the SIP. As described in Section 2.1, *Proposed Action*, construction activities associated with the Proposed Action would not exceed *de minimis* thresholds for any criteria air

pollutants (40 CFR §93.153).[1] Therefore, pursuant to the CAA, a Conformity Determination is not required.

1.7.5 Wetland and Water Resources Regulatory Requirements

The Clean Water Act (CWA) of 1977 (33 USC §1251 et seq.) regulates pollutant discharges that could affect aquatic life forms or human health and safety. Section 404 of the CWA and Executive Order (EO) 11990, *Protection of Wetlands*, regulate development activities in or near streams or wetlands. Section 404 also regulates development in streams and wetlands and requires proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) for dredging and filling in wetlands. The Proposed Action would not include any dredging activities. In-water work would be limited to the construction of the pile supported pier extensions. EO 11988, *Floodplain Management*, requires federal agencies to take action to reduce the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. Federal agencies are directed to consider the proximity of their actions to floodplains.

1.7.6 Coastal Zone Consistency Determination

The federal CZMA of 1972 mandated state-federal partnerships to ensure the protection of coastal resources. In compliance with this law and to address and resolve coastal problems, the State of Hawaii developed Hawaii's Coastal Zone Management (CZM) Program (Hawaii Revised Statutes [HRS] 205A-2). The CZM Program is designed to protect valuable and vulnerable coastal resources by reducing coastal hazards and improving the review process for activities proposed within the coastal zone. The CZM Program focuses on ten objectives and policies related to the following: recreational resources; historic resources; scenic and open space resources; coastal ecosystems; economic uses; coastal hazards; managing development; public participation; beach protection; and marine resources. The

[1] The phrase *de minimis* means "of minimum impact." The USEPA has defined *de minimis* thresholds for criteria air pollutants, which indicate that there would be no significant contamination within an airshed.

CZM Program also requires permits for development within Special Management Areas (SMAs), which include lands within 300 feet from the shoreline.

The Proposed Action site is located within an SMA. The federal regulations implementing the CZM Program require the applicable state agency to inform the applicable federal agency of its agreement or disagreement with the federal agency's consistency determination. Therefore, the USCG is required to submit a consistency determination to the Hawaii Office of Planning and Sustainable Development (OPSD) based on the analysis of the Proposed Action and alternatives to the Proposed Action provided in this EA and the State of Hawaii must issue either agreement or disagreement with that determination.

To support the in-water and overwater elements of the Proposed Action, a request for a CZMA consistency determination was submitted to the OPSD for concurrence. The public notice for the CZM review was published in the Environmental Review Program's *The Environmental Notice* on March 23, 2024. The USCG is awaiting concurrence from OPSD that the proposed mooring and structural pier upgrades at Base Honolulu are consistent to the maximum extent practicable with the enforcement policies of the CZM Program, provided that compliance with BMPs and coordination with regulatory agencies identified in the EA were followed, as required.

1.7.7 Hawaii Revised Statutes (HRS) Chapter 343

Compliance with HRS Chapter 343 is required for any one of nine defined actions that propose: 1) the use of state or county lands or funds; 2) use of land classified as conservation district; 3) use within a shoreline area (as defined in HRS Chapter 205A); 4) use within any historic site as designated in the National Register of Historic Places (NRHP) or Hawaii Register; 5) use of the Waikiki area of Oahu; 6) amendments to existing county general plans resulting in specific designation impacts; 7) any reclassification of land classified as a conservation district; 8) any construction of new or modification of existing helicopter facilities; or 9) construction of a water treatment unit, waste-to-energy facility, landfill, oil refinery, or power-generating facility. All elements of the Proposed Action are confined to Base Honolulu and owned in fee simple by the USCG. The Proposed Action would not entail the use of state or county lands or funds – or any other

property outside federal jurisdiction; thus, an environmental assessment under HRS Chapter 343 is not required.

1.7.8 Hawaii Revised Statutes (HRS), Chapter 205

Under the State Land Use Law (Act 187), HRS Chapter 205, all lands and waters of the state are classified into one of four districts: Agriculture, Rural, Conservation, or Urban. Conservation Districts, under the jurisdiction of DLNR, are further divided into five subzones: Protective, Limited, Resource, General, and Special. The use of Conservation District lands is regulated by HRS Chapter 183C and Hawaii Administrative Rules (HAR) Chapter 13-5. All elements of the Proposed Action are confined to Base Honolulu (federal property owned in fee simple by the USCG) and adjacent submerged lands under federal jurisdiction.

1.7.9 Cultural Resources Regulatory Requirements

The NHPA of 1966 (16 USC §470) established the NRHP and the Advisory Council on Historic Preservation (ACHP), which outlined procedures for the management of cultural resources on federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The NHPA requires federal agencies to consider the potential impacts of their proposed developments on cultural resources that are listed, nominated to, or eligible for listing on the NRHP; designated as a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. Section 106 of the NHPA requires federal agencies to consult with the appropriate State Historic Preservation Office (SHPO) if their undertaking might affect such resources. Protection of Historic and Cultural Properties (36 CFR Part 800) provides an explicit set of procedures for federal agencies to meet their obligations under the NHPA, which includes requirements for inventory of resources and consultation with the SHPO.

EO 13007, *Indian Sacred Sites*, directs federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites on any land or interests in land owned by the U.S., including leasehold interests held by the U.S.,

except Indian trust lands. Indian sacred sites consist of any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe [an Indian or Alaska Native tribe, band, nation, Pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to P.L. 103-454, 108 Stat. 4791, an "Indian" refers to a member of such an Indian tribe] or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion) provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

The American Indian Religious Freedom Act (AIRFA) (42 USC §1996) established federal policy to protect and preserve the rights of Native Americans to believe, express, and exercise their traditional religions, including providing access to sacred sites. The Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §§3001-3013) requires consultation with Native American tribes prior to excavation or removal of human remains and certain objects of cultural importance.

1.7.10 Sustainability and Greening

On January 20, 2021, President Biden issued EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, which declared the Administration's policy to listen to the science; to improve public health and protect our environment; to ensure access to clean air and water; to reduce greenhouse gas emissions; to bolster resilience to the impacts of climate change; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver on these goals. EO 13990 directs federal agencies to immediately review and take action to address the promulgation of federal regulations and other actions during the last 4 years that conflict with these important national objectives and to immediately commence work to confront the climate crisis.

1.7.11 City and County of Honolulu General Plan

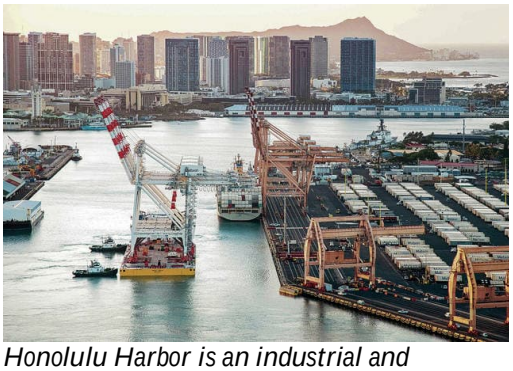
The General Plan for the City and County of Honolulu, most recently revised in 2021, is a comprehensive document with wide-ranging social, economic, environmental, and design objectives, as well as broad policies to facilitate the attainment of those objectives. The General Plan is divided into 11 subject areas including: population; economic activity; the natural environment; housing; transportation and utilities; energy; physical development and urban design; public safety; health and education; culture and recreation; and government operations and fiscal management (City and County of Honolulu 2021).

1.8 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This EA considers the Proposed Action and evaluates potential environmental impacts to those environmental resources that would likely be affected by implementation of the Proposed Action. For this EA, the following environmental resources are evaluated:

- Air Quality and Climate Change;
- Biological Resources;
- Cultural Resources;
- Geological Resources;
- Hazardous Materials and Wastes;
- Safety;
- Visual Resources; and
- Water Resources.

Pursuant to NEPA, environmental resource areas that are anticipated to experience either no environmental impacts or negligible environmental impacts under implementation of the Proposed Action are not examined in detail. Implementation of the Proposed Action evaluated in this EA is not anticipated to result in any long-term adverse impacts to airborne noise, transportation, socioeconomics and environmental justice, or public services and utilities. A brief description of each of these environmental resources is provided below:



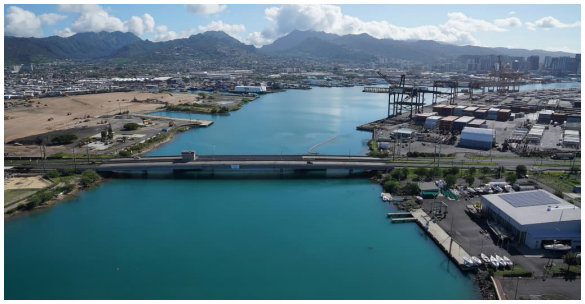
Honolulu Harbor is an industrial and commercial waterfront serving cruise ships and ferries as well as general cargo, barges, and tugboats.

- Airborne Noise. Implementation of the Proposed Action would result in temporary airborne noise associated with the proposed construction and demolition activities at Base Honolulu. Construction activities would generally occur during the weekdays within the daytime hours and would involve the use of standard construction equipment including, but not limited to, heavy haul trucks, crane barges, tugboats, and pile drivers. Airborne noise during these construction activities would generally be consistent with the existing ambient noise environment at this industrial and commercial waterfront location. Noise associated with tugboats and other vessels involved in construction activities at Base Honolulu would also be consistent with the ambient noise environment given the existing marine vessel traffic within Honolulu Harbor. Impact pile driving would be the predominant noise source during construction and would determine the maximum airborne noise levels in the vicinity of Base Honolulu. However, use of an impact pile driver would be limited as each of the pile supported pier extensions would require a minimal number of piles. Therefore, the increase in noise levels would be intermittent and short-term.

  Following the completion of construction activities, the change in personnel or operational activities at Base Honolulu would be limited. The airborne noise levels associated with routine vessel operation and maintenance, training activities, personnel lodging, and recreation would be consistent with the existing ambient noise environment, which is dominated by vessel operations and industrial and commercial waterfront operations.

- Transportation. Construction activities associated with the Proposed Action would involve the use of marine vessels and heavy haul trucks to

remove demolition debris and deliver construction materials to Base Honolulu. Additionally, construction worker commutes would contribute to existing traffic along the roadway network within the vicinity of Base Honolulu. However, this increase in marine vessels and roadway traffic would be temporary.



Sand Island Parkway provides the sole connection to mainland Oahu.

Base Honolulu is located adjacent to a federally maintained navigation channel, which is heavily trafficked by marine vessels including cargo ships, barges, ferries, cruise ships, and leisure boats. Marine vessel operations during construction would not contribute substantially to or otherwise affect typical marine vessel movements in Honolulu Harbor and would likely be limited to a single tugboat and a single crane barge. While marine traffic can often be congested within the channel, these additional temporary marine vessel operations would not substantially contribute to the overall marine vessel traffic. The USCG would issue a Notice to Mariners, as necessary, regarding maritime safety in the navigation channel. Additionally, the USCG would coordinate with the USACE, as necessary, regarding permitting requirements under the CWA and the Rivers and Harbors Act (RHA).

Sand Island is linked to the City of Honolulu by Sand Island Parkway, also referred to as Highway 64. Sand Island Parkway is located adjacent to and provides direct access to Base Honolulu as well as to local businesses, including five port terminals. The Sand Island Parkway experiences little to no congestion, operating at a Level of Service (LOS) A in the vicinity of Sand Island (Oahu Metropolitan Planning Organization 2009). LOS A is a classification of optimum traffic volume conditions. Construction-related traffic associated with the Proposed Action – including heavy haul truck trips and construction worker commutes – would be limited to less than 10

trips per day and would not contribute substantially to overall traffic volumes in the region. Given the construction schedule, these heavy haul truck trips and construction work commutes would be limited to the daytime during off-peak periods, further limiting the potential for traffic related impacts.

Following the completion of construction activities, the change in personnel or operational activities at Base Honolulu would be minimal. Therefore, there would be no change in marine vessel traffic or vehicle traffic.

- Socioeconomics and Environmental Justice. Construction activities associated with the proposed demolition and construction activities would be temporary in nature and would generate short-term spending and employment opportunities. This work would result in beneficial impacts on the local economy; however, these impacts would be negligible in the context of the regional economy.

  EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that *"each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health."* As described in Section 4, *Environmental Consequences*, construction activities associated with the Proposed Action would not substantially affect either human health or the environment. Therefore, no permanent populations – minority, low-income, Tribal, or otherwise – would be disproportionately affected.

- Public Services and Utilities. Implementation of the Proposed Action would not substantially change the number of personnel at Base Honolulu. Therefore, there would be no long-term increase in demand for police, fire, recreation, or schools.

The Proposed Action would utilize existing utility services including electricity and communications; minor upgrades to utility infrastructure at Base Honolulu to accommodate the second WLB is included in the shoreside infrastructure element. Construction activities would be subject to standard design review requirements

in order to avoid inadvertent interruption of existing subsurface utilities at Base Honolulu. In addition, the proposed facilities are not expected to result in a substantial increase in utility demands over existing conditions.

SECTION 2
PROPOSED ACTION AND ALTERNATIVES

The USCG is proposing the extension of an existing berth at Base Honolulu to accommodate the anticipated return of a second 225-foot WLB along with a new floating dock to better accommodate the three existing FRCs at Base Honolulu.

As described in Section 1.1, *Introduction*, the previous NSC homeport project modified the berths at Base Honolulu, leaving only one berth position for the existing WLB. The overarching *need* for the Proposed Action is to accommodate the second assigned 225-foot WLB, which is expected return to service soon following its off-site mid-cycle assessment.

The USCG is also considering the construction of a floating pier (connected by a small dolphin) that could be used as another berth for the existing FRCs at Base Honolulu. The *need* for this floating pier is to avoid inefficient temporary berthing options (i.e., stacked or nested) when all three FRCs are in berth at Base Honolulu simultaneously. Periods of maintenance and on/offloading would otherwise require shifting berth positions, increasing overall downtime.

2.1 PROPOSED ACTION

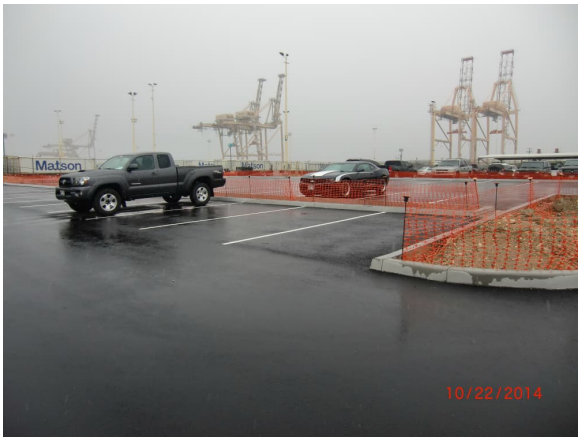
The USCG proposes to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 feet eastward from Berth G to berth the second WLB. The Proposed Action would allow for adequate mooring of the WLB including fenders, mooring hardware, and services. The electrical service for the WLB would need to be upgraded; these upgrades would require a new switch and circuit breaker, isolation transformer, motor control center, additional conduit, and power mound to meet WLB requirements. Materials required for support piles have not been determined at this design stage but could include steel, concrete (precast or auger-cast), or pressure-treated lumber.

The USCG would also demolish and dispose of the existing floating dock (supporting an 87-foot Coastal Patrol Boat [CPB]) currently sited at Berth G), to include removal of foundations and piles, but excluding the floating gangway which may be reused if the construction options described below are executed.

The USCG assumes that all demolished pilings and other wood debris would be chemically treated and require special disposal.

The USCG has not yet prepared bid documents for construction of the proposed project and therefore a final construction plan has not yet been developed. It is expected that the contractor would use a combination of in-water and on-shore methods to accomplish the Proposed Action, based on the alternative ultimately identified for implementation. Typical construction methods are expected to be as follows:

- It is anticipated that access to the project site by construction crews would occur primarily from land. Construction vehicles and equipment would access the site from Sand Island Parkway, a four-lane road providing access to Base Honolulu via a secure, gated entrance.



Construction parking and materials laydown would occur on existing surface parking lots or lawns located in close proximity to the project site.

- A temporary project-related equipment and material staging area would be required and is anticipated to be located on a portion of the Base parking lot or lawn areas. Selection of the portion of the parking lot to be used would ensure that adequate parking would remain available for the duration of project implementation. Additionally, workspace would be provided to enable interim administrative needs until the new facility is operational.

2.2 Alternative 1: Precast Concrete Floating Dock

In addition to the elements described for the Proposed Action (refer to Section 2.1, *Proposed Action*), the USCG is considering an option to construct a new precast concrete floating dock that would attach to the east side of the new fixed Pier G via a small gangway, occupying space off the Berth F area. This floating dock would support an existing 154-foot FRC. Shore ties and some additional hardware would be required to support the FRC.

Figure 2: Proposed WLB Mooring and Structural Pier Upgrades

2.3 ALTERNATIVE 2: LATERAL PIER EXTENSION

The proposed development of a berth for the 225-foot WLB would create a triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Forklifts or other equipment entering Berth G would need to make a tight turn to avoid buildings and other infrastructure in this area. Therefore, the USCG is also considering an option to construct a small lateral pier extension to fill this gap. This lateral extension would involve the construction of a bulkhead and pile-supported decking that would allow safer personnel, equipment, and vehicle transit to and from the Berth G area. Although other options are available (e.g., placement of fill), the USCG is proposing pile-supported decking in order to minimize impacts to water quality.

2.4 NO ACTION ALTERNATIVE

CEQ regulations implementing NEPA require that a No-Action Alternative be analyzed to provide a baseline for comparison with the Proposed Action. The No-Action Alternative identifies and describes the potential environmental impacts of the future state of the status quo (i.e., if the Proposed Action were to not be implemented).

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu.

SECTION 3
AFFECTED ENVIRONMENT

This section describes pertinent existing environmental conditions for resources potentially affected by the Proposed Action and identified alternatives. In compliance with NEPA; CEQ Regulations for Implementing NEPA; DHS Security Management Directive 023-01, Rev 01; DHS Instruction Manual 023-01-001-01, Rev 01; and COMDTINST 5090.1, *Environmental Planning Policy*, the description of the affected environment focuses on only those aspects potentially subject to impacts.

In the case of the Proposed Action at USCG Base Honolulu, the affected environment description is limited primarily to Base Honolulu and, regionally, to the adjacent areas in the Honolulu Harbor. Resource descriptions focus on the resources that would have the potential to be affected by implementation of the Proposed Action or any of the identified alternatives, including:

- Air Quality and Climate Change;
- Biological Resources;
- Cultural Resources;
- Geological Resources;
- Hazardous Materials and Wastes;
- Safety;
- Visual Resources; and
- Water Resources.

3.1 AIR QUALITY AND CLIMATE CHANGE

3.1.1 Definition of Resource

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. NAAQS are established by the USEPA for criteria pollutants, including the following: O_3, CO, NO_2, SO_2, PM_{10} and $PM_{2.5}$, and Pb. NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare.

3.1.1.1 Criteria Pollutants

Air quality is affected by stationary sources (e.g., urban and industrial development) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography. In the vicinity of the Project Area, the following criteria pollutants are of potential concern:

Ozone (O_3). In April 2004, the USEPA issued the final rule for 8-hour O_3, revising the 1-hour O_3 NAAQS standard. The 8-hour standard is more stringent than the 1-hour standard, and non-attainment areas for 8-hour O_3 are now designated. As of June 15, 2005, the 1-hour standard was revoked for all areas except those without effect dates for 8-hour O_3 designations (USEPA 2023a). On March 12, 2008, the USEPA revised the 8-hour O_3 NAAQS to a level of 0.075 parts per million (ppm) from the previous level of 0.08 ppm. The change, which was designed to improve the protection of public health, went into effect on May 27, 2008 (USEPA 2023a).

Particulate Matter (PM_{10} and $PM_{2.5}$). Particulate matter (PM) is a mixture of tiny particles that vary greatly in shape, size, and chemical composition, and can be comprised of metals, soot, soil, and dust. PM_{10} includes larger, coarse particles, whereas $PM_{2.5}$ includes smaller, fine particles. Sources of course particles include crushing or grinding operations, and dust from paved or unpaved roads. Sources of fine particles include all types of combustion activities (e.g., motorized vehicles and vessels, power plants, wood burning) and certain industrial processes. Exposure to PM_{10} and $PM_{2.5}$ levels exceeding current standards can result in increased lung- and heart-related respiratory illness. The USEPA has concluded that finer particles are more likely to contribute to health problems than those greater than 10 microns in diameter.

Other criteria pollutants, including CO, nitrogen oxides (NO_x), sulfur oxides (SO_x), airborne Pb, and hazardous air pollutants do not occur at levels warranting

detailed evaluation in the vicinity of the Proposed Action (Hawaii Department of Health [HIDOH] 2023a).

3.1.1.2 Clean Air Act Amendments

The CAA Amendments of 1990 place most of the responsibility to achieve compliance with NAAQS on individual states. To this end, USEPA requires each state to prepare a SIP. A SIP is a compilation of goals, strategies, schedules, and enforcement actions that will lead the state into compliance with all NAAQS. Areas not in compliance with a standard can be declared *nonattainment* areas by USEPA or the appropriate state or local agency. In order to reach *attainment*, NAAQS may not be exceeded more than once per year.

Compliance with the NAAQS is based on data from ambient air monitoring stations located throughout the state, including monitoring stations in the vicinity of Base Honolulu. The Hawaii Department of Health, Clean Air Branch (HIDOH-CAB), enforces air quality regulations in Hawaii.

The USEPA General Conformity Rule (40 CFR Part 93, Subpart B for federal agencies and 40 CFR Part 51, for state requirements) requires all federal agencies to ensure that any agency action or activity conforms to an approved SIP. This applies only to federal actions in *nonattainment* or *maintenance* areas. The General Conformity Rule requires analysis of total direct and indirect emissions of criteria pollutants, including precursors, when determining conformity of the Proposed Action. The rule applies if the action's emissions are greater than 10 percent of an area's total emissions of a given pollutant and are considered "regionally significant" or emissions exceed *de minimis* thresholds. If *de minimis* thresholds are exceeded, a conformity decision shall be made.

3.1.1.3 NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change

Consistent with EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, CEQ has issued interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change.

As discussed in this guidance, when conducting climate change analyses in NEPA reviews, agencies should consider: 1) the potential effects of an action on climate change, including by assessing both greenhouse gas emissions and reductions from the proposed action; and 2) the effects of climate change on a proposed action and its environmental impacts. Analyzing reasonably foreseeable climate effects in NEPA reviews helps ensure that decisions are based on the best available science and account for the urgency of the climate crisis. Climate change analysis also enables agencies to evaluate reasonable alternatives and mitigation measures that could avoid or reduce potential climate change-related effects and help address mounting climate resilience and adaptation challenges.

CEQ originally published the guidance on January 8, 2023 to seek public comment on the guidance. CEQ intends to either revise the guidance in response to public comments or finalize the interim guidance.

3.1.1.4 Hawaii Climate Adaptation Initiative Act

On June 9, 2014, Hawaii established an interagency climate adaptation committee charged with developing a sea-level rise vulnerability and adaptation report addressing statewide impacts through 2050 (House Bill 1714; now Act 83). Act 83 also authorizes the Office of Planning to coordinate the development of climate adaptation plans and policy recommendations, and to use the committee's report as a framework for addressing other climate threats and climate change adaptation priorities. In 2017, the Office of Conservation and Coastal Lands (OCCL) and the Office of Planning developed the statewide *Hawaii Sea Level Rise Vulnerability and Adaptation Report* that provides guidance for development projects (Hawaii Climate Change Mitigation and Adaptation Commission 2017).

3.1.2 Existing Conditions

3.1.2.1 Climate

Base Honolulu is located on Sand Island within Honolulu Harbor, approximately 0.15 miles southeast of the City of Honolulu. As with the rest of the Island of Oahu, Honolulu is characterized by mild temperatures, with annual averages ranging

from 65.8 degrees Fahrenheit (°F) to 84 °F, and heavy annual rainfall, averaging approximately 20.87 inches (Western Regional Climate Center 2014).

Honolulu is located more than 2,000 miles from the nearest continental landmass, and experiences moderate temperatures based on climatic factors related to its proximity to the Pacific Ocean. By the time they reach the State of Hawaii, including Oahu, the temperature of cold arctic air masses may increase by as much as 100 degrees during their passage of the Pacific in winter months. The temperature moderation generated by the ocean also serves as a seasonal lag time for the islands, where the peak of summer and winter are as much as two months behind corresponding seasonal peaks experienced on continental North America (Price 1983). Other factors that influence the climate include storms and pressure systems. Light and variable southwest winds bring hot, humid weather in the summer and occasional storms with high waves, wind, and rain in the winter (Price 1983).

More locally, temperature and rain on Island of Oahu is also influenced by terrain, as steep mountains cause fronts to rise and increase precipitation on the north-facing slopes, while the south (leeward) side of the island experiences less precipitation. Thus, the northerly side of the island tends to be wetter with more frequent rainfall, while the leeward side will be regularly dry and sunny, experiencing rain primarily during seasonal winter storms.

3.1.2.2 Local Air Quality

Air pollution originates from industrial activity, motor vehicles, power equipment, and energy production. Because the State of Hawaii is not impacted by pollution from neighboring states and because it benefits from virtually constant ocean breezes, the islands have some of the best air quality in the nation. There are 16 monitoring stations that are located across the State of Hawaii, four of which are located in Honolulu County and are maintained by the HIDOH-CAB (HIDOH 2023b). The Sand Island monitoring station, which is located nearest to Base Honolulu, measures O_3, $PM_{2.5}$, wind speed, and wind direction while the Punchbowl Street air quality station measures PM_{10} and $PM_{2.5}$ as well as CO and SO_2. The Kapolei monitoring station measures PM_{10} and $PM_{2.5,}$ wind speed, wind direction, and NO_2, (HIDOH 2023c). Data gathered from these stations indicate

that the Island of Oahu and the State of Hawaii are in *attainment* for all federal and state criteria air pollutants (HIDOH 2023c).

3.1.2.3 Emissions at Base Honolulu

Air pollutant emissions at Base Honolulu are associated with the operation of vessels, periodic maintenance dredging operations, building operations (e.g., utility usage) and the commute of Base Honolulu personnel. Such emissions are considered minor on a regional scale. Therefore, Base Honolulu does note operate under any existing air quality permits and is not required to provide air quality reporting data.

3.1.2.4 Climate Change Issues for Honolulu Harbor

Impacts from global climate change vary from ocean and atmospheric warming to increased threats to public health and safety. In Hawaii, an interdisciplinary working group was established by the State Office of Planning, CZM Program, with assistance from the University of Hawaii's Center for Island Climate Adaptation and Policy. The State of Hawaii's Ocean Resources Management Plan (ORMP) Working Group subsequently prepared *A Framework for Climate Change Adaptation in Hawaii* (2009) to encourage and facilitate federal, state, and local agencies, policy makers, business, and community partners to plan ahead for the impacts of climate change (University of Hawaii 2009). Potential impacts and planning considerations were identified by the document, including the following impacts identified for *Port and Harbor Management*:

- Submersion of infrastructure due to sea level rise and flooding
- Increased public safety risk due to hazardous flooding conditions
- Weakened drainage systems that remove storm water runoff from harbor facilities
- Increased potential for the spread of diseases and other public safety issues due to flooding conditions
- Loss of operational time due to flooding conditions

In 2011, the Oahu Metropolitan Planning Organization held a workshop addressing the climate change risk for major Oahu transportation assets, including

Honolulu Harbor, Honolulu International Airport, Kalaeloa area, and bridges at Waikiki. The *Transportation Asset Climate Change Risk Assessment* summary issued at the conclusion of the workshop (Oahu Metropolitan Planning Organization 2011) which assessed the risk for these transportation assets based on five climate change variables (i.e., sea level rise, storm surge, rainfall, wind velocity, and air temperature) for three time periods (baseline definitions from 1970-2000, 2050, and 2100). Honolulu Harbor was assessed as having a high-risk level for both 2050 and 2100 based on its high vulnerability to storm surges and because of its high socioeconomic importance.

Since that time, the Hawaii Climate Change Mitigation and Adaptation Commission prepared the *Hawaii Sea Level Rise Vulnerability and Adaptation Report* (2017), which recommended the state, including the Island of Oahu, prepare for 3.2 feet of sea-level rise arriving as early as 2060. The Hawaii Department of Transportation (HDOT), Harbors Division (HDOT-Harbors) is engaged in efforts to develop adaptation strategies to address the long-term impacts of climate change. This includes collaborating with other agencies (HDOT is a member of both the ORMP Policy Group and Working Group) and considering climate change adaptation in its harbor master plans and designs. The *Honolulu Harbor 2050 Master Plan* was published in November 2022 at sets for goals to "…meet the significant challenges to harbor infrastructure and operations posed by climate change and sea level rise…" and "a commitment to creative, cooperative, and timely adaptation strategies and investments in harbor infrastructure …" Key recommendations related to adaptation and resiliency include raising pier facilities to adapt to sea level rise and meet future operational requirements, and reconstructing and strengthening pier facilities to withstand more frequent and intense storm events. Additional recommendations related to adaptation and resiliency include conducting a feasibility study, in coordination with the USACE, for the reopening of a second harbor entrance at Kalihi Channel and widening the Main Entrance and Kapalama Transit Channels (HDOT-Harbors 2022).

3.2 BIOLOGICAL RESOURCES

3.2.1 Definition of Resource

Biological resources include native or naturalized plants and wildlife and the habitats in which they occur. Sensitive biological resources are defined as those plant and wildlife species that are federally listed as threatened or endangered, proposed as such, under the ESA (refer to Section 1.7.2, *Endangered Species Act*) or otherwise afforded by the NMFS under the MSA (refer to Section 1.7.3, *Magnuson-Stevens Fishery Conservation and Management Act*) or the Marine Mammal Protection Act (MMPA). The ESA protects listed species against take, which includes killing, harming, harassing, or any action that may damage their habitat. Federal Candidate species receive no statutory protection under the ESA; however, cooperative conservation of these species is encouraged because they are, by definition, species that may warrant future protection under the ESA (USFWS 2017).

3.2.2 Existing Conditions

Base Honolulu is located in Honolulu Harbor, which is highly developed and used primarily for commercial purposes. The harbor handles over 12 million tons of cargo annually and serves the critical central hub of the State's commercial harbor system as all overseas imports arrive at Honolulu Harbor before being distributed to neighboring islands. The harbor is 40 feet deep and contains five components: the Main Channel, Main Harbor Basin, Kapalama Channel, Kapalama Basin, and Kalihi Channel (HDOT-Harbors 2012). There are 30 major berth facilities with more than 5 linear miles of mooring space. In addition to berthing wharves, the site consists of developed upland areas including more than 200 acres of container yards, loading docks, parking lots, buildings, parks, and other landscaped areas.

3.2.2.1 Terrestrial Biological Resources

<u>Vegetation</u>

Vegetation in the Sand Island area is influenced by generally low rainfall, saline soil, the man-made origin of the area, and the high degree of development and

human activity. Consequently, only a small variety of plant life, which is characterized as drought resistant, highly salt-tolerant, and hearty in dry areas, occurs on Sand Island. No federally or state-listed plant species are found on any area of Sand Island (USCG 2023).

The project area is located along a reinforced waterfront. There is no native shoreline vegetation within the project area.

Vegetation at Base Honolulu is limited to manicured landscaping (e.g., annual grasses and ornamental trees) around buildings, impervious surface parking lots and laydown areas. No substantial native shoreline vegetation occurs within the Base Honolulu or the project site.

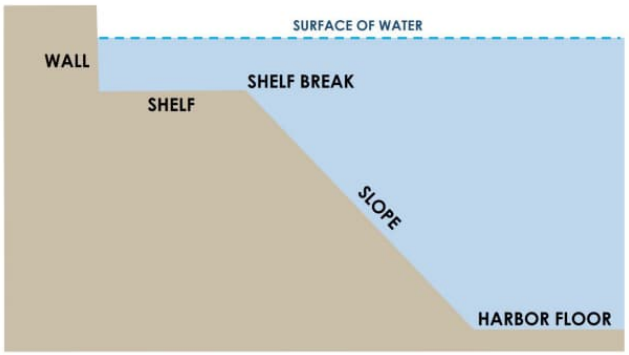
Terrestrial Habitats

Due to the developed nature of Honolulu Harbor and Base Honolulu, there are no functionally intact terrestrial upland habitats within the project area. Further, as a result of ongoing shipping activities, noise disturbances deter most shoreline species from occupying areas within or surrounding the harbor. More suitable upland habitats are located to the south of Honolulu Harbor within and in the vicinity of the Sand Island State Recreation Area. However, this area also experiences large volumes of residents and weekend campers and is located near the San Island Off-Highway Vehicle day use riding area (DLNR 2023).

Terrestrial Wildlife

Transient birds and small mammals may be observed resting within the project area. Typical small mammals that would be expected to occur in the vicinity of the project area include rats (*Rattus* spp.), house mice (*Mus musculus*), feral cats (*Felis catus*), and feral dogs (*Canis lupus familiaris*). Bird species likely to occur in the general vicinity include shorebirds and multiple species of gulls and doves as well as house sparrow (*Passer domesticus*) and house finch (*Haemorhous mexicanus*). No federally or state-listed terrestrial special status wildlife species are known to

occur within the project area (USCG 2016). Further, no federally designated critical habitat for terrestrial wildlife species occurs within the project area (USFWS 2022).



The physical habitat structure within the survey area involves four distinct zones including the vertical wall, shelf, shelf break and slope, and harbor floor.

Aquatic Biological Resources

Honolulu Harbor has been previously surveyed by USACE for maintenance in the harbor (USACE 2015). Additionally, several surveys have been conducted around Base Honolulu over the years, including dive surveys conducted by Marine Research Consultants, Inc. (MRCI) in November 2014 (MRCI 2015) and additional surveys conducted by Foster and Sukhraj in January and February 2015 (Foster and Sukhraj 2015). The most recent surveys of the Berths F and G were conducted by MRCI in March and November 2023.

The primary goal of the marine biotic assessment surveys was to identify corals and other marine resources within the survey area at Berths F and G. Inspections of the entire survey area from the upper waterline down to the sediment surface of the harbor channel floor were carried out by divers swimming repeated transects through the length of the survey area. The survey swims served to identify major transitions between substate types and benthic communities. All coral species were documented and photographed, and abundance estimates were recorded. The presence of seagrass and algae, benthic species, and fish species were also noted, where present.

Physical Habitat Structure

The physical structure of the shoreline and nearshore submerged surfaces extending to the Honolulu Harbor floor were generally similar throughout the survey area (MRCI 2023). The shoreline fronting Berths F and G is divided into four distinct zones.

- Vertical Wall: The vertical wall is the man-made concrete wall abutting the bulkhead at Berth F.

- Shelf: At the base of the vertical wall, the hard platform consists of a narrow, shallow (less than 3 feet deep) reef shelf.
- Shelf Break and Slope: The outer edge of the shelf is defined by a sharp break to a slope of approximately 45 degrees.
- Harbor Floor: At the base of the slope at a depth of approximately 20 to 25 feet, the harbor floor flattens out and is primarily soft bottom with sediments. Surveys of this area have identified submerged debris at many locations around including pipes, ropes, concrete beams, metal objects, tires, cans, fishing line, gear, and tarps.

The existing floating dock at Berth F is located approximately 30 feet from the Berth F bulkhead; therefore, it is located beyond the shelf break and is above the slope and harbor floor. The existing pier at Berth G is located further into Kapalama Channel and extends over the shelf and shelf break forming a submerged concrete face. The piles supporting Berth G are located on the slope and the harbor floor. Berth G has a slope and harbor floor similar to Berth F that consists of sediment covered rock surface.

Corals within the Honolulu Harbor

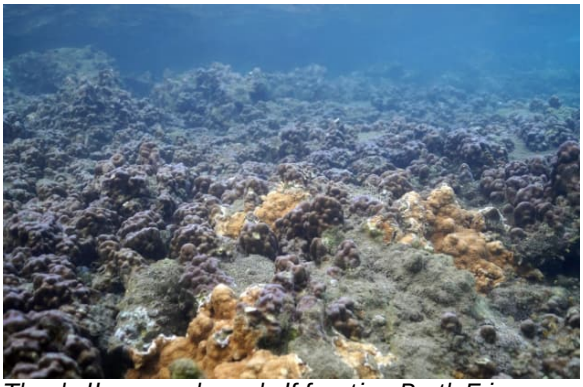
Benthic surveys performed in March 2023 identified soft corals (*Zoanthus* spp. and *Palythoa* spp.) and eight species of hard coral at Berths F and G (MRCI 2023). The most common hard corals include *Porites lobata*, *Pocillopora meandrina*, *Montipora capitata*, and *M. patula*.

Berth F

Encrusting Pavona varians *covers the vertical wall at Berth F.*

The vertical wall at Berth F is covered with a living carpet consisting of encrusting hard corals (primarily several encrusting growth form variants of *Porites* spp.) and soft corals (*Zoanthus* spp. and *Palythoa* spp.). Coral cover on the vertical shoreline wall is estimated at 80 to 90 percent of available hard substrate. The shelf at Berth F is nearly completely colonized by corals. The species assemblage is dominated by several forms of *Porites lobata*, which occurs primarily

as either sheets of knobby encrustations or flat purple veneers. Coral cover on the sloping shelf is estimated at 80 to 100 percent of available hard substrate.



The shallow nearshore shelf fronting Berth F is colonized by encrusting coral Porites lobata (purple) and Monitipora spp. (brown).

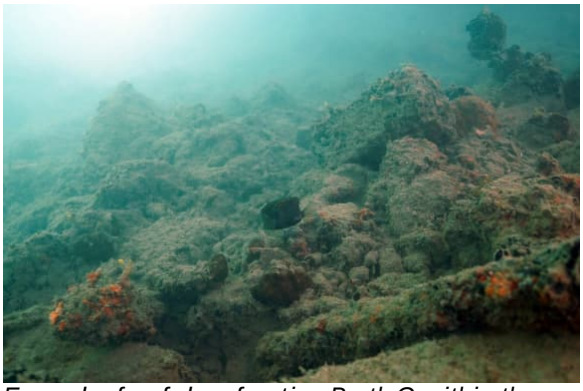
Large hemispherical colonies of Porites spp. And Monitpora spp. at the shelf break and slope fronting Berth F.

The submerged shelf break and slope at Berth F provides an ideal setting for corals by providing solid substratum, good water quality and circulation, adequate light, and protection from destructive wave forces. As a result, the area contains a diverse and abundant coral community consisting of a multitude of species and growth forms. Coral cover consists of a variety of species including large encrustations of *Montipora patula* and *M. capitata*, as well as branching hemispherical colonies of *Pocillopora meandrina*. Most notable are numerous large hemispherical colonies of *Porites lobata* and what appears to be either short-branched *Porites compressa* or *Porites duerdeni*. Many of these colonies are 3 to 4 feet in diameter, indicating that they have been growing undisturbed for at least several decades. Other coral species that were observed on the shelf break and slope were *Leptastrea purpurea* and *Pavona varians* which occur as small flat encrustations. At a depth of approximately 18 feet, coral cover on the slope begins to diminish and steadily decreases with depth to the channel floor. At the channel floor corals were scarce, and consisted of only small, isolated colonies. Coral cover on the shelf break and upper slope is estimated at 70 to 80 percent of available hard substrate.

To estimate the density of corals at Berth F, a sample was taken on the shelf and upper slope. There are approximately five corals that are greater than 25 centimeters (cm) per square meter (m^2). The survey estimated approximately 1,400 corals at Berth F; however, the survey area was much larger than the project

footprint. During a site visit on September 8, 2023, NMFS confirmed that no corals are located in the project footprint at Berth F (see Section 4.2, *Biological Resources*).

Berth G



Example of reef slope fronting Berth G within the vicinity of the project area.

The coral community off Berth G differs considerably from Berth F. The concrete structures of the gangway at Berth F and the pier at Berth G shade the nearshore area to a great extent, which likely restricts the growth of corals. The piles and submerged pier faces were largely devoid of corals. Corals that do occur were isolated colonies of *P. meandrina* and encrustations of *P. lobata*, *Montipora* spp. and *L. purpurea*. The bottom slope below the piers fronting Berth G consist primarily of bare sediment covered rock surfaces. The extensive coral structures that occur off Berth F do not occur off Berth G.

Berth G area has a lower coral density of one 25-cm coral per m^2, most of which are encrusting corals. The survey estimated approximately 250 corals at Berth G; however, the survey area was much larger than the project footprint. During a site visit on September 8, 2023, NMFS confirmed that no corals are located in the footprint of the proposed Berth G Expansion, but are located in the Berth G Lateral Extension (see Section 4.2, *Biological Resources*).

Aquatic Vegetation and Algal Communities

Based on surveys performed by USACE for maintenance dredging in the Honolulu Harbor, seagrass beds and algae are minimal within the harbor (USACE 2015). Nearshore habitat diversity in the immediate vicinity of the project area is limited to unconsolidated sediment/mud in the deeper areas, piles, and over-water structure provided by piers and docks, and hard substrate on which corals have varying presence (MRCI 2015; Foster and Sukhraj 2015). Surveys performed on Base Honolulu in 2015 identified turf algae and sponges on Berths F and G; however, all of these forage species are connected with corals (Foster and Sukhraj

2015). During the benthic surveys conducted in March 2023 no seagrass or macroalgae was observed within the project area (MRCI 2023).

The surface of floor of Honolulu Harbor adjacent to Base Honolulu consists of fine-grained mud within fragments of coral rubble and other debris.

Benthic Communities

During the most recent benthic surveys conducted by MRCI (2023), sea urchins were the most abundant non-coral invertebrates observed throughout the Berth F and G. These included *Tripneustes gratilla*, *Echinometra mathaei*, *Diadema paucispinum*, and *Echinothrix diadema*. While there were numerous dead bivalve shells on the concrete pier structures, few live mollusks were observed. Several endemic Hawaiian pearl oysters (*Pinctada galtsoffi*) were observed on the piles and channel floor. A variety of fouling organisms, including sponges, hydroids, and tunicates, colonized the concrete surfaces of pilings. No crustacean species were observed.

Fish

During the most recent benthic surveys conducted by MRCI (2023) a total of 25 fish species were identified within the project area including boxfish, butterflyfish, cardinalfish, damselfish, eels, goatfish Moorish idols, parrotfish, pufferfish, snappers, squirrelfish, surgeonfish, triggerfish wrasses. Additional fish taxa that can be found in the Kapalama Channel include angelfish, blennies, filefish, gobies, Hawaiian anchovy, hawkfish, jacks, moray eels, striped mullet, and trunkfish. No large individuals (i.e., greater than 12 inches) or species of commercial value were observed.

Essential Fish Habitat

The MSA requires federal agencies to consult with the NMFS to address activities that may adversely affect EFH, which is defined as "…those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Such "waters" include "…aquatic areas and their associated physical, chemical, and biological properties that are used by fish…" and may include aquatic areas historically used by fish. "Substrate" includes "…sediment, hard bottom,

structures underlying the waters, and associated biological communities…" (NMFS 2004).

The Hawaii Department of Land and Natural Resources, Division of Aquatic Resources (DLNR-DAR) is the primary agency for coordinating reef management efforts in the Main Hawaiian Islands (DLNR 2023). The EFH in the Pacific Region is defined by the Western Pacific Regional Fishery Management Council (WPRFMC). NMFS PIRO also manages and regulates these fisheries. Since the 1980s, PIRO has managed EFH for several fish and coral species under separate Fishery Management Plans (FMPs). These included the Bottomfish and Seamount Groundfish FMP (WPRFMC 1986a), the Crustaceans FMP (WPRFMC 1983), the Precious Corals FMP (WPRFMC 1979), the Coral Reef Ecosystems FMP (WPRFMC 2001), and the Pacific Pelagic FMP (WPRFMC 1986b).

In 2010, the WPRFMC developed Fishery Ecosystem Plans (FEPs) as an ecosystem-based approach to fisheries management and is restructuring its management framework from species-based FMPs to place-based FEPs. The FEP incorporates all of the management provisions of the Bottomfish and Seamount Groundfish FMP, the Crustaceans FMP, the Precious Corals FMP, and the Coral Reef Ecosystems FMP that are applicable to a given area. Although pelagic fishery resources play an important role in the biological as well as the socioeconomic environment of the Hawaiian Islands, they are managed separately through the Pacific Pelagic FEP. Habitat Areas of Particular Concern (HAPCs) were also identified through individual FMPs and are included in the FEPs. However, there are no HAPCs located within the project area

EFH for Bottomfish and Seamount Groundfish Management Unit Species (MUS). There are 14 bottomfish MUS included in the Hawaii FEP. These include: silverjaw snapper (*Aphareus rutilans*), gray jobfish (*Aprion virescens*), giant trevally (*Caranx ignobilis*), black jack (*C. lugubris*), sea bass (*Etelis quernus*), red snapper (*E. carbunculus*), longtail snapper (*E. coruscans*), blue stripe snapper (*Lutjanus kasmira*), yellowtail snapper (*Pristipomoides auricilla*), pink snapper (*P. filamentosus* and *P. seiboldii*), snapper (*P. zonatus*), thicklip trevally (*Pseudocaranx dentex*), and amberjack (*Seriola dumerili*). Seamount groundfish MUS include ratfish (*Hyperoglyphe japonica*) alfonsin (*Beryx splendens*) and armorhead (*Pseudopentaceros wheeleri*) (WPRFMC 2009a). Except for several of the major commercial species,

very little is known about the life histories, habitat utilization patterns, food habits, or spawning behavior of most adult bottomfish and seamount groundfish species. Further, very little is known about the distribution and habitat requirements of juvenile bottomfish. Generally, the distribution of adult bottomfish in the Western Pacific Region is closely linked to suitable physical habitat. Unlike the U.S. mainland, with its continental shelf ecosystems, Pacific islands are primarily volcanic peaks with steep drop-offs and limited shelf ecosystems. Adult bottomfish are usually found in habitats characterized by a hard substrate of high structural complexity. The total extent and geographic distribution of the preferred habitat of bottomfish is not well known. To reduce the complexity and the number of EFH identifications required for individual species and life stages, EFH has been designated for bottomfish assemblages. The species complex designations include deep-slope bottomfish (shallow water and deepwater) and seamount groundfish complexes. The designation of these complexes is based on the ecological relationships among species and their preferred habitat. Given the uncertainty concerning the life histories and habitat requirements, EFH was designated for adult and juvenile bottomfish as the water column and all bottom habitat extending from the shoreline to a depth of approximately 1,969 feet (600 meters) and encompassing the steep drop-offs and high-relief habitats that are important for bottomfish throughout the Western Pacific Region (WPRFMC 2009a).

The diets of juvenile and adult bottomfish are not well known; however, juvenile individuals have been reported as eating small crustaceans, other juvenile fish, mollusks, gelatinous plankton, and echinoids. Adult diets vary and can include fish, crabs, shrimp, and other benthic crustaceans.

Although this EFH does occur within the project area, no bottomfish or seamount groundfish species were observed during surveys at Base Honolulu in 2023.

Crustacean MUS. To reduce the complexity and the number of EFH identifications required for individual species and life stages, EFH has designated assemblages for crustacean species (WPRFMC 2009a). The species complex designations are spiny lobsters (*Panulirus marginatus* and *P. penicillatus*) slipper lobsters (Family Scyllaridae), Kona crab (*Ranina ranina*), and deepwater shrimp (*Heterocarpus* spp.) (WPRFMC 2009a). Spiny lobster EFH for larvae is designated

as the water column from shore to 149 feet (150 meters) deep, and bottom habitat for juvenile and adults from the shore to 100 meters deep.

Deepwater shrimp EFH is designated as within the water column from 1,804 to 2,297 feet (550 to 700 meters) for eggs and larvae, and on outer reef slopes between 984 to 2,297 feet (300 to 700 meters) for juveniles and adults. Due to the shallow waters in Honolulu Harbor, deepwater shrimp EFH does not occur within the project area.

Although spiny and slipper lobster and Kona crab EFH does occur within the project area, none of these species were observed during surveys at Base Honolulu in 2023.

Coral Reef Ecosystem MUS. Coral reef ecosystem MUS include over 80 species mentioned in the FEP including species within the following families: surgeonfish (Acanthuridae), triggerfish (Balistidae), jacks (Carangidae), sharks (Carcharhinidae), squirrelfish (Holocentridae), wrasses (Labridae), goatfish (Mullidae), Moray eels (Muraenidae), octopi (Octopodidae), parrotfish (Scaridae), barracuda (Sphyraenidae), and many others (WPRFMC 2009a). In designating EFH for Coral Reef Ecosystems, MUS are linked to specific habitat "composites" (e.g., sand, live coral, seagrass beds, mangrove, and open ocean) for each life history stage. Except for several of the major coral reef associated species, very little is known about the life histories, habitat utilization patterns, food habits, or spawning behavior of most coral reef associated species. For this reason, EFH was designated using a two-tiered approach including these categories: Currently Harvested Coral Reef Taxa and Potentially Harvested Coral Reef Taxa. To reduce the complexity and the number of EFH identifications required for individual species and life stages, the EFH has been designated assemblages for species (WPRFMC 2009a).

During the benthic surveys performed in March 2023 25 species of coral reef fish were observed, the most abundant were Chaetodonts (butterflyfish), Acanthurids (surgeonfish), and Labrids (wrasses).

Pacific Pelagic MUS. Oceanic and pelagic fish are the most important fish (economically, culturally, and socially) in the Pacific. These fish live in the near-

surface waters of the ocean, often far from shore. These include species such as dolphinfish, wahoo, tuna, billfish (swordfish, sailfish, marlin, spearfish), pelagic sharks, moonfish, and squid (WRPFMC 2009b).

Species of oceanic pelagic fish live in tropical and temperate waters throughout the world's oceans, including the Pacific. They are capable of long migrations that reflect complex relationships to oceanic environmental conditions. These relationships are different for larval, juvenile, and adult stages of life. The larvae and juveniles of most species are more abundant in tropical waters, whereas the adults are more widely distributed.

Preferred water temperature often varies with fish size. Adult pelagic fish usually have a wide temperature tolerance, and during spawning they generally move to warmer waters that are preferred by larval and juvenile stages.

Many pelagic fish make vertical migrations through the water column. They tend to inhabit surface waters at night and deeper waters during the day, but several species make extensive vertical migrations between surface and deeper waters throughout the day.

Although there are many unknowns regarding life stages and locations of Pacific pelagic species, many are thought to occur in the open ocean for all life stages, but some may have life stages within nearshore habitats, including those in Honolulu Harbor. No Pacific pelagic species were observed during surveys at Base Honolulu in March 2023.

Marine Mammals and Sea Turtles

A number of marine mammals and sea turtles are known to occur off the coast of the Hawaiian Islands (see Table 3-1). However, none of these species were documented or observed in the project area by in the 2015 surveys conducted by MRCI and Foster and Sukhraj or the 2023 surveys conducted by MRCI.

Table 3-1. Marine Mammals and Sea Turtles Known to Occur off of the Hawaiian Islands

Common Name	Scientific Name
Mammals	
Blainville's beaked whale	*Mesoplodon denisrostris*
Blue whale	*Balaenoptera musculus*
Common bottlenose dolphin	*Tursiops truncates*
Bryde's whale	*Balaenoptera edeni*
Cuvier's beaked whale	*Ziphius cavirostris*
Dwarf sperm whale	*Kogia sima*
False killer whale	*Pseudorca crassidens*
Fin whale	*Balaenoptera physalus*
Fraser's dolphin	*Lagenodelphis hosei*
Hawaiian monk seal	*Monachus schauinslandi*
Humpback whale	*Megaptera novaeangliae*
Killer whale	*Orcinus orca*
Longman's beaked whale	*Indopacetus pacificus*
Minke whale	*Balaenoptera acutorostrata*
Melon-headed whale	*Peponocephala electra*
Pantropical spotted dolphin	*Stenella attenuata*
Pygmy killer whale	*Feresa attenuate*
Pygmy sperm whale	*Kogia breviceps*
Risso's dolphin	*Grampus griseus*
Rough-toothed dolphin	*Steno bredanensis*
Sei whale	*Balaenoptera borealis*
Short-beaked common dolphin	*Delphinus delphis*
Short-finned pilot whale	*Globicephala macrorhynchus*
Sperm whale	*Physeter macrocephalus*
Spinner dolphin	*Stenella longirostris*
Striped dolphin	*Stenella coeruleoalba*
Reptiles	
Green sea turtle	*Chelonia mydas*
Hawksbill sea turtle	*Eretmochelys imbricate*
Leatherback sea turtle	*Dermochelys coriacea*

Common Name	Scientific Name
Loggerhead sea turtle	*Caretta caretta*
Olive ridley sea turtle	*Lepidochelys olivacea*

Source: NMFS 2023a.

Federally Listed Threatened and Endangered Species

As previously described, Base Honolulu is heavily developed with no functionally intact terrestrial upland habitat types. USFWS has identified that the Hawaiian hoary bat may occur in the project vicinity; however, habitat to support the Hawaiian hoary bat does not exist in the project area. No federally listed terrestrial plant or wildlife species are known to occur or have federally designated critical habitat within the vicinity of the project area. (USFWS 2022).

Three federally listed aquatic species have the potential to occur within the project area, including the green sea turtle, Hawksbill sea turtle, and Hawaiian monk seal. In addition, federally designated critical habitat for the green sea turtle is proposed within the project area.

Green Sea Turtle

The green sea turtle is listed as a federally threatened species within the vicinity of Honolulu Harbor. Green turtles inhabiting the Hawaiian Islands are among the best known in the Pacific in terms of their nearshore benthic foraging pastures and associated underwater habitats. Important resident areas have been identified along the coastlines of Oahu, Molokai, Maui, Lanai, Hawaii, as well as at Lisianski Island and Pearl and Hermes Reef (Balazs et al. 1987; Balazs 1979, 1980, 1982).

On July 19, 2023, the USFWS and NMFS concurrently proposed additional critical habitat that includes area in the Hawaiian Islands, including Oahu (88 Federal Register [FR] 46376 and 88 FR 46572). NMFS also proposed marine critical habitat on July 19, 2023, which includes physical or biological features (PBFs) that are essential to the conservation of the species. Within the project area, only the benthic foraging / resting essential feature is present (USCG 2023).

Based on surveys performed by the USACE for maintenance dredging in the Honolulu Harbor, foraging habitat (i.e., seagrass beds and algae) is minimal within the harbor and green sea turtles are more likely to occur in the entrance channel and nearshore waters where seagrass beds are present (USACE 2015). Surveys

performed by the USFWS in 2013 observed a male green sea turtle foraging in the entrance channel (USFWS 2014 as cited in USACE 2015). Benthic surveys performed by MCRI (2023) did not identify any seagrass or macroalgae within the project area. However, since green sea turtles may also feed on sponges and invertebrates, marginal foraging habitat does occur within the project area (USCG 2023).

Hawksbill Sea Turtle

The Hawksbill sea turtle is listed as a federally endangered species in the vicinity of the project area. Hawksbills nest only on main island beaches, primarily along the east coast of the island of Hawaii. Two of these sites (Halape and Apua Point) are in Hawaii Volcanoes National Park (Balazs et al. 1992; Katahira et al. 1994). Other beaches on the island of Hawaii with recorded Hawksbill nesting include Kamehame, Punaluu, Horseshoe, Ninole, Kawa, and Pohue. Kamehame Point on Hawaii and a black sand beach at the river mouth of Halawa Valley at the east end of Molokai are the most consistently used beaches.

Critical habitat has not been proposed or designated for the hawksbill sea turtle within the Pacific Ocean.

The project area does not contain suitable nesting habitat for the hawksbill sea turtle. Foraging habitat does occur within the project area; however, this is marginal habitat due to the busy harbor setting. Although there have been sightings of this species in the area, these are injured or sick individuals. It is unlikely that a healthy hawksbill sea turtle would be present within the project area (USCG 2023).

Hawaiian Monk Seal

The Hawaiian monk seal (*Monachus schauinslandi*) is a federally endangered earless seal that is endemic to the waters off the Hawaiian Islands. Monk seals commonly haul out of the water onto sandy beaches and less frequently on rocky beaches to rest. The Hawaiian monk seal is rarely seen in Honolulu Harbor. The Pacific Islands Fisheries Science Center (PIFSC) conducted systematic seal counts in 2000-2001 and in 2008 via aerial surveys for all the main Hawaiian Islands. The 2000 survey was conducted from an airplane and the 2001 and 2008 surveys were both conducted by helicopter. No Hawaiian monk seals were sighted within

Honolulu Harbor during these three surveys (PIFSC 2009, 2012). Reports by the general public, which are non-systematic and not representative of overall seal use of main Hawaiian Islands shorelines, have been collected in the main Hawaiian Islands since the 1980s. A total of four Hawaiian monk seal sightings have been reported for Honolulu Harbor: in 2002, 2004, 2005, and 2009. One sighting was reported as a dead seal floating in the harbor, but the carcass was never recovered (PIFSC 2009).

The remote northwestern Hawaiian Islands are considered federally designed critical habitat for monk seals. On September 21, 2015, federally designated critical habitat for the species was again to include terrestrial and marine areas in 10 areas in the Northwestern Hawaiian Islands and six areas on the Main Hawaiian Islands. However, this designation excluded coastal environments with hardened shorelines or developed areas that lack the features that would support Hawaiian monk seal use. During a meeting with NMFS on March 1, 2023, NMFS stated that the project area in Honolulu Harbor is excluded from federally designated critical habitat for the Hawaiian monk seal (USCG 2023).

The project area does not contain suitable haulout habitat for the Hawaiian monk seal. Some foraging habitat does occur within the project area; however, this is marginal habitat due to the busy harbor and industrialized setting. Although there have been sightings of this species in the area, they are uncommon as monk seals are known to avoid areas with higher human activity. It is unlikely a Hawaiian monk seal would be present within the project area (USCG 2023).

3.3 CULTURAL RESOURCES

3.3.1 Definition of Resource

Cultural resources represent and document activities, accomplishments, and traditions of previous civilizations and link current and former inhabitants of an area. Depending on their conditions and historic use, these resources may provide insight to living conditions in previous civilizations and may retain cultural and religious significance to modern groups.

Archaeological resources comprise areas where prehistoric or historic activity measurably altered the environment or deposits of physical remains (e.g.,

arrowheads, bottles) discovered therein. Architectural resources include standing buildings, districts, bridges, dams, and other structures of historic or aesthetic significance. Architectural resources generally must be more than 50 years old to be considered for inclusion in the National Register of Historic Places (NRHP), an inventory of culturally significant resources identified in the U.S.; however, more recent structures, such as Cold War-era resources, may warrant protection if they have the potential to gain significance in the future. Traditional cultural resources can include archaeological resources, structures, neighborhoods, prominent topographic features, habitats, plants, animals, and minerals that that Native Hawaiians or other groups consider essential for the persistence of traditional culture. These resources are protected by the State under HRS Chapter 6E, Historic Preservation

The principal federal law addressing cultural resources is the NHPA of 1966, as amended (16 USC Section 470), and its implementing regulations (36 CFR Part 800). The regulations, commonly referred to as the Section 106 process, describe the procedures for identifying and evaluating historic properties; assessing the effects of federal actions on historic properties; and consulting to avoid, reduce, or minimize adverse effects. As part of the Section 106 process, agencies are required to consult with the State Historic Preservation Office (SHPO).

The term "historic properties" refers to cultural resources that meet specific criteria for eligibility for listing on the NRHP; historic properties need not be formally listed on the NRHP. Section 106 of the NHPA does not require the preservation of historic properties, but ensures that the decisions of federal agencies concerning the treatment of these places result from meaningful considerations of cultural and historic values and of the options available to protect the properties. The Proposed Action is an undertaking as defined by 36 CFR §800.3 and is subject to requirements outlined in Section 106 of the NHPA.

3.3.2 Existing Conditions

3.3.2.1 Regional History

Current models of Hawaiian history indicate that permanent settlement on the Island of Oahu occurred on the windward side of the island beginning sometime

between 800 and 1000 A.D. During those years, residents often visited the leeward sides of the island to exploit various resources such as fishing areas, bird colonies, and shellfish bays. Small campsites associated with those visits are thought to exist throughout the leeward area (DLNR 2012). It was not until 1804, when King Kamehameha I conquered Oahu that the royal court of the Hawaiian empire finally came to Oahu, first in Waikiki, and then by 1810 relocating to Honolulu and uniting the Hawaiian Island (NPS 2023). While Captain Cook had overlooked this location in 1778, Captain William entered the harbor in 1794, calling it Fair Haven (Hawaiian Historical Society 1934).

Honolulu became the most important shipping port in Hawaii, and it flourished as an exporter of sandalwood, sugar, and pineapple; as a whaling supply port; and as a light manufacturing hub. Both tourism and defense instillations followed the early rise, and those activities remain to this day. Westernization of the Islands was conducted by seaman, colonizers, and merchants from America and Europe, with the arrival of the 1820 New England missionaries leaving the largest imprint as evidenced by modern religion, education, economics, and politics. Despite periods of Russian, French, and British occupation of the harbor, Honolulu was reclaimed and proclaimed the Capitol of Kamehameha III's kingdom by 1850; the City remains the State Capitol to this day.

From U.S. annexation in 1898 to statehood in 1959, Honolulu experienced a turbulent transition. Dredging of the Harbor resulted in the infill of sediment on naturally formed reefs and tidelands, including the barrier island originally known as Quarantine Island in the nineteenth century, a location where ships were required to moor if there was concern that they carried contagious diseases. This newly filled island provided greater protection to the inland side of the harbor for ships and was re-named Sand Island. In the early 1900s, approximately 40 percent of the population in Hawaii was Japanese; as tensions over relations with Japan rose, preparations were made for potential internment if a situation arose. Then, on December 9, 1941, two days after the attack on Pearl Harbor, Sand Island was opened as the primary camp that all Hawaii internees passed through; with no bridge to Honolulu at the time, Sand Island was an isolated location. The internees were initially housed in tents for 6 weeks while proper barracks were constructed, then housed in barracks temporarily as they were processed for other camp

locations. The camp was finally closed on March 1, 1943, and internees were transferred (Japanese Cultural Center of Hawaii 2010).

According to the most recent *Hawaii State Historic Preservation Plan* Oahu currently has 332 historic sites on record, according to the Hawaii Register of Historic Places, and 161 records listed on the NRHP (DLNR 2012). An additional 7,108 archaeological sites have been recorded, according to the State Inventory of Historic Places (DLNR 2012). The NRHP further identifies 173 specific historic places and districts within the City of Honolulu (NPS 2023b). None of these historic sites are located on Sand Island, and despite the historic use of Sand Island, no remnants of the Sand Island Internment Camp or Prisoner of War Camp are documented or preserved within a recognized historic park; however, some structures developed for use during World War II are visible within the State Recreation Area.

3.4 GEOLOGICAL RESOURCES

3.4.1 Definition of Resource

Geological resources consist of surface and subsurface materials and their properties. Principal geologic factors influencing the ability to support structural development are seismic properties (i.e., potential for subsurface shifting, faulting, or crustal disturbance), soil stability, and topography.

The term *soil*, in general, refers to unconsolidated materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support man-made structures. Soils typically are described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use.

Topography is the change in elevation over the surface of a land area. An area's topography is influenced by many factors, including human activity, underlying geologic material, seismic activity, climatic conditions, and erosion. A discussion of topography typically encompasses a description of surface elevations, slope,

and distinct physiographic features (e.g., mountains) and their influence on human activities.

3.4.2 Existing Conditions

Geology

The Island of Oahu was created by the extrusion of basaltic lavas from two shield volcanoes, Waianae and Koolau. The older volcano, Waianae, is estimated to be middle to late Pliocene in age and forms the bulk of the western one-third of the island. The younger shield, Koolau, is estimated to be late Pliocene to early Pleistocene in age and forms the majority of the eastern two-thirds of the island (Stearns and Vaksvik 1935). Waianae became extinct while Koolau was still active, and its eastern flank was partially buried below Koolau lavas banking against its eastern flank and forming a broad plateau, now known as the Schofield Plateau. The exposed part of the older lava is nearly 2,000 feet thick and consists largely of thin-bedded pahoehoe (i.e., lava characterized by a smooth and billowy surface). The Waianae Volcano, like other Hawaiian volcanoes, produced only small amounts of ash, and the lava was primarily extruded from fissure a few feet wide, which now occupied by dikes (Stearns and Vaksvik 1935).

The Waianae Range, which is approximately 20 miles wide and forms the western part of Oahu, is made up of three groups of lavas erupted in Tertiary and possibly in early Pleistocene era. The striking features of the Waianae Range are the great flat-floored valleys that indent its western slope. The Koolau Range, which makes up the eastern part of the island, comprises beds of basalt which in general dip away from its crest.

Honolulu and Sand Island are located in the southern region of Oahu, which is known as the Honolulu Coastal Plain. Coastal Plains on Oahu are located on top of a broad coral reef platform established during the late Pleistocene during interglacial periods of warmer waters and higher relative sea level (U.S. Geological Survey [USGS] et al. 2002a).

Within the Coastal Plain region, Sand Island is located within the Honolulu Basin, an area along the southern coast of Oahu. Honolulu Basin, the harbor, its channels,

and Sand Island (previously Quarantine Island), were all formed naturally by the flow of fresh water from the Nuuanu Watershed into ocean. The freshwater inhibited coral growth, thereby creating a basin, which is present-day Honolulu Harbor; these flows also etched out channels through the coral which now form the formal channels, and sedimentation and sand accumulation on a shallow offshore reef formed the beginning of Quarantine Island. From 1905 onward, the Honolulu Harbor experienced increased development, including channel widening, basin and channel dredging, and the infill of Quarantine Island.

This region, including the Honolulu Coastal Plains leading up to the Waianae and Koolau Ranges, is protected from northern trade winds and storms by extinct volcanic mountains, but is exposed to southern Kona storms and south swell. The dominant wave direction along this southern coast is from the southwest, ultimately from Kona winds and other storm events which can take place up to 30 percent of the year (USGS et al. 2002b). The impact of coastal erosion in this area is reduced by the presence of wider offshore fringe reefs, and near Waikiki by installed seawalls and groins.

Topography

Both the Waianae and Koolau Ranges are extinct basaltic volcanoes deeply dissected by erosion. Great amounts of both the Waianae and Koolau Ranges were removed by fluvial and marine erosion during the Pleistocene era. After this erosion cycle, the island was submerged more than 1,200 feet, and these valleys were submerged and alleviated (Stearns and Vaksvik 1935). Today, the topography of Oahu is characterized by broad central valleys in the interior portions of the island and tall steep slopes on the coastal areas as a result of erosion from wind, rain, and sea.

Soils

The island is broken into four main geologic areas but is comprised of a wider range of soil associations. The four geologic regions consist of the Waianae Range, the Koolau Range, Schofield Plateau, and the Coastal Plains (U.S. Department of Agriculture [USDA] National Resources Conservation Service [NRCS] 1972). As the basaltic lavas and volcanic ash from the volcanoes have weathered and

decomposed, a total of seven primary soil associations have developed and come to dominate Oahu, including: the Lualualei-Fill/land-Ewa, the Helemano-Wahiawa, the Tropohumults-Drystrandepts, Rough mountainous land-Kapaa, Rock land-Stony steep land, the Kaena-Waialua, and the Lolekaa-Waikane association.

Of the four primary regions on Oahu, Honolulu is located within the Coastal Plains, adjacent to the ocean and formed from coral reefs and alluvial sediment. These plains have smooth gentle slopes and are used primarily for farming, ranching, and urban development. Also located in these plain areas are several volcanic cones, including Diamond Head, Salt Lake Crater, and Punchbowl (NRCS 1972).

Sand Island is defined as consisting of approximately 468.6 acres of acres of Mixed Fill Land (FL) and 43.4 acres of Jaucas Sand (JaC) (0-15 percent slopes) (NRCS 2014). According to the NRCS, FL type soils consist of materials dredged from the ocean or hauled from nearby areas, or garbage, or from other general material. When wet, this soil type has a moderately low runoff potential as water drains moderately freely through the soil (NRCS 1972). In the center of Sand Island, JaC soils are characterized as having a low runoff potential when wet as water is transmitted excessively well through the soil; this soil consists of sand-sized fragments of coral and seashells (NRCS 1972).

Geologic Hazards

Base Honolulu is located within a topographically low-lying area that may be exposed to geologic hazards. Together the USGS, University of Hawaii School of Ocean and Earth Science and Technology, and the University of Hawaii's, Coastal Geology Group produced the *Atlas of Natural Hazards in the Hawaiian Coastal Zone*, which assigns qualified rankings to seven natural coastal hazards based on historical trends and natural factors influencing site vulnerability and hazard intensity in the Hawaiian coastal zone (USGS et al. 2002a, 2002b). These hazards consist of the following: coastal slope, geology, tsunamis, stream flooding, high waves, storms, erosion, sea level, seismicity, and volcanism. From this report, the Honolulu coastal zone Overall Hazard Assessment is classified with moderate to high safety risks, primarily due to "…the low coastal slope which is especially

susceptible to damage resulting from tsunami, stream flooding, hurricane storm surge, and seasonal high-wave flooding. Tsunami and storms are ranked high while stream flooding and high seasonal waves are moderately high. These rankings are supported by a history in Honolulu of severe flooding from both storm surge and stream runoff from the steep surrounding hillsides of the Koolau Range" (USGS et al. 2002b). Geologic hazards are further described in Section 3.6, *Safety*.

3.5 HAZARDOUS MATERIALS AND WASTES

3.5.1 Definition of Resource

Hazardous materials are defined as substances with strong physical properties of ignitability, corrosivity, reactivity, or toxicity which may cause an increase in mortality, a serious irreversible illness, incapacitating reversible illness, or pose a substantial threat to human health or the environment. Hazardous wastes are defined as any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes which pose a substantial present or potential hazard to human health or the environment.

Issues associated with hazardous materials and wastes typically center around underground storage tanks; aboveground storage tanks; and the storage, transport, and use of pesticides; bulk fuel; and petroleum, oil, and lubricants. When such resources are improperly used, they can threaten the health and well-being of wildlife species, botanical habitats, soil systems, water resources, and people.

3.5.2 Existing Conditions

3.5.2.1 Hazardous Materials and Wastes in the Vicinity of Base Honolulu

The hazardous waste areas identified by the USEPA that are located nearest to Base Honolulu include 11 sites on Sand Island. Due to city permitting, many light industrial facilities are located here; refer to Table 3-2 for a complete list and distance from Base Honolulu.

Table 3-2. Local Hazardous Waste Sites: Sand Island

Source/Site	Resource Conservation and Recovery Act (RCRA), Handler ID #	Address	Distance From Base Honolulu (feet)
R S I Roofing and Waterproofing Supply	HIR000124743	1081 Makepono St	310
Transoceanic Cable Ship Co	HIR000000711	1001 Sand Island Pkwy	95
Island Wide Air Conditioning Service, LLC	HIR000139220	1029 Ulupono St	280
Honolulu Disposal (Aloha Petroleum)	HIP000141291	1169 Mikole St	625
Martin Warehousing and Distribution	HIP000107086	1122 Mikole St	780
National Chemsearch Division of NCH Corp	HID000151241	318 Central Way Sand Island	780
Mitsunaga Construction Inc.	HIP000097006	1035 Mikole St	400
Sand Island Business Associate	HIP000037200	1071 Mikole St	430
Sand Island Business Association	HIR000139709	1006 Mikole	700
Dags Csd Liliuokalani Bldg	HIR000104257	1026 Puuiwa Pl	1,060
Tajiri Lumber Co	HID984466748	1002 Puuwai Street	1,200

Source: USEPA 2023c.

3.5.2.2 Hazardous Materials and Wastes at Base Honolulu

Base Honolulu is a Small Quantity Generator of hazardous waste and has obtained USEPA Generator Number HI8690390036. During the course of normal Base operations, the Base, tenants, and Sector units generate various amounts of used lubricating oils, machine oils, hydraulic oils, solvents, paints, sandblast grit, fluorescent light tubes, and spent lead acid batteries Storage at the Hazardous Waste Storage Facility is permanent; however, where possible, materials are transferred at the point of accumulation directly by a contractor. In addition, hazardous materials and wastes at Base Honolulu are managed under the Coast Guard Hazardous Waste Management Manual (COMDTINST M16478.1B), which was prepared in accordance with the Resource Conservation and Recovery Act (RCRA) and outlines requirements for the management of hazardous waste at

USCG facilities, including record keeping, sampling and analysis practices, training, and specific procedures for preparing for and responding to inadvertent releases of hazardous materials.

3.6 SAFETY

3.6.1 Definition of Resource

While it is removed from the active volcanism and seismicity of the Island of Hawaii, natural hazards associated with high waves, storms, and flooding annually threaten Oahu's coastal inhabitants and infrastructure. The primary difference between the nature of coastal hazards on Oahu and the rest of the Hawaiian Islands is the magnitude of the risk due to extensive shoreline development. The Island of Oahu, particularly in its southern region is highly vulnerable to tsunami hazards. Consequently, a tsunami hazard zone has been designated around the perimeter of the island, generally at least 100 feet away from inland waterways and marinas and up to 0.75 mile inland of the Pacific Ocean. The overall hazard assessment for the Honolulu coastal zone is moderate to high, primarily due to the low coastal slope, which is susceptible to damage resulting from tsunami, stream flooding, hurricane storm surge, and seasonal high-wave flooding (USGS et al. 2002b). While Oahu is far less active than the Island of Hawaii, the volcanic/seismic hazards on Oahu are also ranked moderately high in the southern half of the island, due to its location in the Molokai Seismic Zone and a history of occasional significant seismic activity (USGS et al. 2002a).

3.6.2 Existing Conditions

Wave Action: High waves are common occurrence along the Hawaiian shores. These waves are sourced from distant storms in the northern and southern hemisphere and from passing tropical cyclones. High waves can trigger hazards including debris over wash, flooding, erosion, high wave energy and turbulence in the near shore zone and generate strong currents. The largest waves that hit Oahu are generally a result form intense storms in the North and Northwest Pacific during the winter month, these swells commonly generate waves 15 to 20 feet high, and generally hit the north and west shores. Other high waves are

sourced from hurricanes during the season between June 1 and December 1. Waves from hurricanes present a more complex hazard as they can coincide with other environmental conditions, such as a high tide, storm surge and wind and wave setup to produce a combined threat, creating waves up to 15 to 20 feet along the east and south shores of Oahu. Other smaller waves that reach Oahu include those from the trade winds and summer south swell. Trade winds tend to generate small waves 1 to 4 feet in height, and from their easterly direction, can refract around to the south and southwest shoreline. Summer storm swells, sourced as far away as New Zealand in the Southern Hemisphere, generate waves with long periods, at 4 to 6 feet in height, and tend to impact the south facing shoreline (USGS et al. 2002b).

Tsunamis: Tsunamis pose a unique and infrequent risk to Oahu. Caused by violent movement in the sea floor tsunamis are characterized by fast speeds, up to 590 miles per hour (mph), long wave lengths, up to 120 miles, long periods between crests, generally 10 to 60 minutes, and low wave height in the open ocean. When they meet land, tsunamis can flood hundreds of feet or more. In recorded history of Hawaii, there have been 26 tsunamis with flood elevations greater than 3.3 feet (1 meter). Of these, 10 had a significant damaging effect on Oahu, roughly translating to a recurrence interval of one damaging tsunami reaching Oahu every 19 years (USGS et al. 2002b). The last major Tsunami impacted Oahu in 1976; however, the island could be expected to experience another damaging tsunami event at any time. While flooding events, such as those characterized by AE, 100-year flood events would primarily affect the southern and eastern portions of Sand Island, leaving much of Base Honolulu untouched, a Tsunami event would have a much larger impact zone. The impact of a Tsunami at Honolulu could result in the flooding of most of Sand Island including nearly the entirety of Base Honolulu (City and County of Honolulu 2022a).

Stream Flooding: Floods from stream overflow and high surface run-off, or non-channelized flow, are common on Oahu. Stream flooding primarily occurs when torrential rain and runoff from steep slopes of the island abruptly meet flat or low-lying coastal plains. Flooding at the mouths of many rivers is also a common flood hazard when run-off flow from storms meets marine storms and high wave events; such that the flow reaches a sea that is elevated by a combination of high waves, winds, storm surges and tide (USGS et al. 2002b).

Strong Winds: Facing southwest, coastal Honolulu, including Sand Island, is extremely vulnerable to strong winds from tropical storms (USGS et al. 2002b). Between 1974 and 1993 there have been 14 unique instances of strong storms or wind events with winds as high as 25 to 65 mph along the coast west of Diamond Head (USGS et al. 2002b).

Coastal Erosion: The Honolulu Coast runs from the Honolulu International Airport to the west and east to Diamond Head. Honolulu Harbor is partially protected from storms and ocean swells by Sand Island. The southern shore along Sand Island east to Ala Moana Park is somewhat protected by wide offshore fringe reefs; however, erosion has historically been a problem, especially around Waikiki Beach and east, at the base of Diamond Head, and prompting the instillation of seawalls and groins (USGS 2002b). Base Honolulu, constructed on fill and calcareous formations, is not located on the Pacific-facing side of Sand Island; therefore, it is more protected against coastal erosion.

Earthquake: The southern portion of Oahu, including all of Honolulu City, is located within the Molokai Seismic Zone, warranting its current classification as being at moderately high risk for ground shaking (USGS et al. 2002b). Existing theories supporting the potential existence of fault heading west from Diamond Head would further increase the risk on Oahu (USGS Hawaiian Volcano Observatory 2023).

Earthquake-Induced Liquefaction and Landslide: Sand Island is characterized by its calcareous foundation with soft fill soils as well as JaC. The calcareous foundation is a unique substance. Composed of skeletal remains of marine organisms, it exhibits unusual partial properties: high susceptibility to particle crushing; local variations in particle sizes, shapes, and surface roughness; cementation; and pronounced internal porosity, all of which results in susceptibility to natural hazards (Datta et al. 1982; Wallace 2005). This combination creates an increased potential for earthquake-induced ground motion, liquefaction, and landslide. While relatively level, and not as susceptible to landslides, the upland area of Honolulu has topographic features that make it more susceptible to landslides including steep hillsides, heavy rainfall, and strong pressure for residential development on geologically constrained land (City and County of Honolulu 2021).

3.7 VISUAL RESOURCES

3.7.1 Definition of Resource

Visual resources are defined as the natural and manufactured features that comprise the aesthetic qualities of an area. These features form the overall impressions that an observer receives of an area or its landscape character. Landforms, water surfaces, vegetation, and manufactured features are considered characteristic of an area if they are inherent to the structure and function of a landscape.

The significance of a change in visual character is influenced by social considerations including public value placed on the resource, public awareness of the area, and general community concern for visual resources in the area. These social considerations are addressed as visual sensitivity and are defined as the degree of public interest in a visual resource and concern over potential adverse changes in the quality of that resource.

3.7.2 Existing Conditions

Sand Island is a relatively thin barrier island between the Main Harbor Basin and the Kapalama Basin, southwest of Honolulu City; it is relatively flat and generally does not rise much above sea level (HDOT-Harbors 2022). Sand Island comprises a contrast of viewsheds, including the higher urban densities of downtown Honolulu, its waterfront, and the Aloha Tower, to the northeast, including a scenic backdrop formed by the Koolau Mountain Range; open spaces of Sand Island Beach State Recreation Area and the Pacific Ocean to the south, east, and west; and heavy industrial and shipping operations to the north and west. The mauka, or mountainside vistas include the Nuuanu Valley and Leeward Coast, spanning from Barbers Point to the iconic natural landmark of Diamond Head. The southern-facing beach on the Pacific side of the island is located within the Sand Island Beach State Recreation Area, providing highly scenic features, including a sandy beach that is generally 50- to 100-foot-wide beach, but 180-foot wide at its widest point. The central and north-eastern portion of the island is characterized by more industrial development and includes the Honolulu sewage treatment plant, various recycling and distribution centers, a large number of industrial and

light industrial facilitates, and a rehabilitation center. The northwestern shore of Sand Island is less intensely developed, providing space for five piers, with docking and loading Gantry cranes, and container storage space for a large container facility. The rest of the northern shore of Sand Island, extending eastward until reaching the State of Hawaii Anuenue Fisheries Research Facility and Sand Island Beach State Recreation Area, consists primarily of Base Honolulu.

3.8 WATER RESOURCES

3.8.1 Definition of Resource

Water resources analyzed for this EA include surface and groundwater resources. The quality and availability of surface and groundwater and potential for flooding are addressed in this section. Surface water resources comprise lakes, rivers, and streams and are important for a variety of reasons including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrologic resources of the physical environment and is an essential resource in many areas; groundwater is commonly used for potable water consumption, agricultural irrigation, and industrial applications. Groundwater properties are often described in terms of depth to aquifer, aquifer or well capacity, water quality, and surrounding composition.

Water resources are also important because of their role in determining historical migratory and settlement patterns of virtually all mammals; influence on nesting and migratory activities of many bird species; contribution to the evolution of landforms through their roles in the erosion process; and their participation in critical global systems including hydrologic cycle, temperature modification, and oxygen replenishment.

Other issues relevant to water resources include watershed areas affected by existing and potential runoff and hazards associated with floodplains. Floodplains are belts of low, level ground present on one or both sides of a stream channel and are subject to either periodic or infrequent inundation by floodwater. Inundation dangers associated with floodplains have prompted Federal, state, and local legislation that limits development in these largely to recreation and preservation activities. For example, EO 11988, *Floodplains Management,* requires actions to

minimize flood risk and impacts. Under this order, development alternatives must be considered, and development must be in accordance with specific Federal, state, and local floodplain regulations.

Wetlands are defined by the USACE and USEPA as "…those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR §328.3[b]). *Hydric soils* are those that are saturated, flooded, or ponded for sufficient periods during the growing season and that develop anaerobic conditions in their upper horizons (i.e., layers). *Wetland hydrology* is determined by the frequency and duration of inundation and soil saturation; permanent or periodic water inundation or soil saturation is considered an important force in wetland establishment and proliferation. Jurisdictional wetlands are those subject to regulatory authority under Section 404 of the CWA and EO 11990, *Protection of Wetlands.* There is no formal wetland program in the HIDOH; however, the HIDOH does use their authority under CWA Section 401 (Water Quality Certification) to certify, waive, or deny water quality certification for CWA Section 404 permits issued by the USACE for dredge/fill activities in waters of the U.S.

3.8.2 Existing Conditions

Surface Water

Hydrologic processes in Hawaii are highly dependent on climatic and geological features, and stream flow is influenced by rainfall and wind patterns (State of Hawaii 2011). Annual average rainfall on Oahu ranges from less than 20 inches on the leeward coast to almost 300 inches near the central crest of the Koolau Range (refer to Section 3.1, *Air Quality and Climate Change*). Such a marked difference over a distance of less than 15 miles has a significant effect upon the island's water resources (Department of General Planning City & County of Honolulu 1990). Additionally, permeable underlying rock may cause some streams on Oahu to have lengthy dry reaches under natural conditions. The majority of perennial streams on Oahu are located in the windward Koolau Range which produces a larger amount of orographic precipitation compared to the leeward side. These

streams on the leeward side of the Koolau Range are generally sustained by leakage from high-level dike compartments as well as from springs and seeps (City and County of Honolulu Department of General Planning 1990).

The watershed surrounding and including the City of Honolulu is known as the West Honolulu Watershed, which spans 21,416 acres (approximately 33.5 square miles). The watershed extends from the top of Koyolau Mountains to the nearshore receiving waters of Honolulu Harbor and Keyehi Lagoon, and includes Sand Island. Within this watershed, the 2,140-acre Kapalama Watershed, to the west, and the 6,550-acre Nuuanu Watershed, to the east, both feed directly into, and influence the condition of, the Honolulu Harbor. The upper extent of the Kapalama Watershed is a forested heterogeneous mix of native and non-native trees, with residential uses through its transitional area and industrial and port uses along the coast. The watershed empties into the Kapalama, constructed in 1961. Designed to reduce flood damage, the canal has historically tested for elevated levels of fecal coliforms, likely due to illegal or inadequate sewage connections nearby (HIDOH 2022). The Nuuanu Watershed is a wider, longer valley and includes the Nuuanu Reservoir 4, which is used for flood management. The upper reaches of this watershed are surrounded by a conservation district, forested with introduced and native species. Large parts of the main valley are developed with residential uses, with commercial uses in the lower reach, and port activities at the receiving waters in Honolulu Harbor and along Sand Island. Water of the Nuuanu Stream, which originates from this reservoir, contains elevated levels of organochloride pesticides and trace elements, at higher levels in water, fish tissue, and sediment samples than other West Honolulu Watershed streams (HIDOH 2022).

Section 303(d) of the CWA requires states to identify waters that do not meet water quality standards and for which a Total Maximum Daily Load evaluation must be performed. The most recent State of Hawaii *Water Quality Monitoring and Assessment Report* prepared by the HIDOH, Clean Water Branch includes various locations in Honolulu Harbor on the 2022 303(d) list (HIDOH, Clean Water Branch 2022). Taken together, the waters around Honolulu Harbor are listed for Total Phosphorus (TP), Total Nitrogen (TN) and Nitrate + Nitrite Nitrogen ($NO_3 + NO_2$). Honolulu Harbor was also listed for ammonium (NH_4) and turbidity. In addition, total suspended solids (TSS), trash, metals, and pathogens were also detected.

Overall, waters located adjacent to the north of Base Honolulu, are listed as requiring Total Maximum Daily Load evaluation but as a low priority for the assessment cycle ending October 31, 2021 (HIDOH, Clean Water Branch 2022).

Groundwater

Oahu has a vast amount of groundwater, divided into seven major areas, which supplies most of the island's domestic water supply (Oki et al. 1999). Volcanic rocks ranging in age from Pliocene to Holocene, make up most of Oahu and compose the most important aquifers. Quaternary-age consolidated sedimentary deposits, which are principally coralline limestone, form productive aquifers in the lowlands and nearshore areas but generally contain brackish water or saltwater and are not suitable for human consumption. Water levels in the freshwater lens of the southeastern Oahu area generally are less than 10 feet above sea level near the western boundary; however, the levels decrease to the east. Water levels in the southern Oahu groundwater area generally range from about 25 to 30 feet above sea level inland to about 15 to 20 feet above sea level near the shore where the water is under artesian pressure because it is confined by caprock. In the north-central Oahu groundwater area, water levels in the freshwater lens range from more than 20 feet above sea level in the southwestern part where the caprock is thick, to less than 3 feet above sea level nearshore in the northern part where the caprock is thin (Oki et al. 1999).

Wetlands

Throughout Honolulu Harbor, a number of estuarine and marine wetlands occur along high surface reefs or sandbar areas between river mouths and the outer shelf of fill lands, such as near Honolulu International Airport and Sand Island. The southern and western perimeter of Sand Island, more than 1,800 feet from Base Honolulu, has shoreline composed of approximately 7 acres of marine wetland. This border is characterized as a high-energy water regime coastline with salinity exceeding 30 parts per thousand, and as an intertidal unconsolidated shore, such that substrates are unconsolidated with less than 75 percent of areal cover by stones, boulders or bedrock, and less than 30 percent areal is covered by vegetation. In addition to these marine wetlands there are three identified freshwater ponds along the southern portion of Sand Island. These artificial, man-

made ponds are characterized as being non-tidal, palustrine systems, covered by trees, shrubs, emergents, mosses, and lichens on less than 30 percent of the surface, with at least 25 percent cover by particles smaller than stones. There are no wetlands located within Base Honolulu (USFWS 2023).

Floodplains

Maps generated by Federal Emergency Management Agency (FEMA) indicate the northern Channel portion of Base Honolulu is partially located within the 100-year floodplain. The Station is classified as lying partially within the FEMA AE Zone, defined as areas subject to inundation by the 1-percent-annual-chance flood event, with a flood level of 5 feet. The western, southern, and eastern portions of Sand Island are characterized as lying within an AE Zone of EL 8 feet and EL 9 feet, see Figure 3.1 (FEMA 2023). No other elements of Base Honolulu are located within a mapped 100-year floodplain. Additionally, the western, southern, and eastern portion of Sand Island include much of Sand Island State Beach Recreation Area, which is vulnerable to storm surge.

SECTION 4
ENVIRONMENTAL CONSEQUENCES

Environmental impacts that would result from implementation of the Proposed Action and its alternatives at USCG Base Honolulu are evaluated in this section. Analyses are presented by resource area, as presented in Section 3, *Affected Environment*. Analysis of potential impacts to resources typically includes: 1) identification and description of resources that could potentially be affected; 2) examination of the Proposed Action and the potential effects the action may have on the resource; 3) assessment of the significance of potential impacts; and 4) development of mitigation, special procedures, or adaptive management measures in the event that potentially significant impacts are identified.

For this analysis, potential impacts are defined as:

- No Effect – if the action would not have any influence or impact over existing conditions.
- Negligible – if the action would result in no noticeable effects, beneficial or adverse, over existing conditions.
- Minor – if the action would result in a limited adverse effect over existing conditions.
- Substantial – if the action would result in a noticeable or measurable adverse impact to existing environmental conditions.

In this analysis, significance is determined by considering the degree of the effects under the alternatives implemented. Per the CEQ NEPA regulations at 40 CFR §1501.3[b], the USCG has considered the degree of effects to each resource area:

- Both short- and long-term effects,
- Both beneficial and adverse effects,
- Effects on public health and safety,
- Effects that would violate federal, state, tribal, or local law protecting the environment.

The impact analysis below focuses on construction-related emissions and operational emissions related to the presence of the proposed in-water

infrastructure. While the implementation of the Proposed Action would support the return of the second WLB, this vessel has already been previously homeported at Base Honolulu. The return of this vessel from an off-site mid-cycle assessment would not require or constitute new operational activities or otherwise result in long-term operational impacts.

4.1 AIR QUALITY AND CLIMATE CHANGE

4.1.1 Approach to Analysis

The 1990 Amendments to the CAA require that federal agency activities conform to the SIP with respect to achieving and maintaining attainment of NAAQS and addressing air quality impacts. The USEPA General Conformity Rule requires that a conformity analysis be performed which demonstrates that a Proposed Action does not: 1) cause or contribute to any new violation of any NAAQS in the area; 2) interfere with provisions in the SIP for maintenance or attainment of any NAAQS; 3) increase the frequency or severity of any existing violation of any NAAQS; or 4) delay timely attainment of any NAAQS, any interim emission reduction goals, or other milestones included in the SIP. Provisions in the General Conformity Rule allow for exemptions from performing a conformity determination only if total emissions of individual nonattainment area pollutants resulting from the action fall below *de minimis* thresholds. Information provided by ambient air monitoring stations located in Honolulu and on Sand Island indicate that the Base Honolulu and project area are located is an area of that is in full *attainment* for all NAAQS thresholds (USEPA 2023b; refer Section 3.1, *Air Quality and Climate Change*), thereby eliminating the need to perform a conformity determination for pollutants.

4.1.2 Impacts

4.1.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Short-term Construction-Related Emissions

Short-term construction fugitive dust and criteria air pollutant emissions would be generated during the proposed removal of the existing floating dock and the construction of the fixed, pile-supported pier extension at Berth G. The heavy construction equipment fleet mix, the hours of construction, and operating conditions would vary during the implementation phases of the Proposed Action. While not currently known, the types of shoreside and in-water construction equipment, the number of construction personnel, and the timing of construction activities would be determined upon completion of engineering design and USCG selection of a contractor.

Operation of construction equipment with internal combustion engines, off-site vehicles (e.g., construction employee vehicles, delivery trucks) and marine vessels would result in emission of criteria air pollutants (i.e., CO, reactive organic gases [ROG], NO_x, SO_2, and PM). In addition to on-site construction emissions, regional emissions would occur associated with haul truck trips (and potentially marine vessel trips) for the delivery of supplies and removal of solid waste (e.g., construction and demolition debris). Nevertheless, due to the short-term nature of proposed construction activities (i.e., maximum of 6 months), combustion emissions would be considered a short-term and minor impact.

General Conformity

Given that the State of Hawaii is in *attainment* for NAAQS, short-term temporary emissions from construction- and operational-related activities related to the Proposed Action would not require a conformity determination. Implementation of the Proposed Action would result in short-term, minor impacts to air quality as defined in Title 40 CFR Part 51.

Climate Change

Honolulu Harbor's vulnerability to climate change factors such as sea level rise and storm surge is a long-term issue that has been the subject of increased discussion by federal, state, and local government agencies as well as University of Hawaii scientists (refer to Section 3.1, *Air Quality and Climate Change*). While the contribution of any single project to climate change is too small to quantify, the combined greenhouse gas emissions from all human activities have a severe long-term adverse impact on the global climate. The operation of heavy construction equipment would result in a temporary increase in greenhouse gas emissions at Base Honolulu. However, this temporary increase in greenhouse gas emissions would be negligible in the context of stationary source and mobile source emissions on Oahu and / or the State of Hawaii.

As described in Section 3.1, *Air Quality and Climate Change*, the Oahu Metropolitan Planning Organization *Transportation Asset Climate Change Risk Assessment* noted that portions of the greater Honolulu Harbor area may be vulnerable to storm surge flooding and ponding. The Hawaii Climate Change Mitigation and Adaptation Commission *Hawaii Sea Level Rise Vulnerability and Adaptation Report* prepare for 3.2 feet of sea-level rise arriving as early as 2060. HDOT-Harbors is engaged in efforts to develop adaptation strategies to address the long-term impacts of climate change. The implementation of the Proposed Action would remove an existing floating dock and extend an existing fixed pier at Berth G. These actions would not increase the vulnerability of Base Honolulu or Honolulu Harbor to sea level rise. Additionally, the implementation of the Proposed Action would not impede the ongoing implementation of ongoing adaptation strategies by HDOT-Harbors. Therefore, impacts would be negligible as a result of the Proposed Action.

4.1.2.2 Alternative 1: Precast Concrete Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. Short-term construction-related air pollutant and greenhouse emissions would be slightly increased as compared to the Proposed

Action due to the construction of this additional project element. Nevertheless, for the reasons described for the Proposed Action, construction-related impact would be minor. Similarly, as described for the Proposed Action, the implementation of this alternative would not result in a long-term increase in operational emissions. Additionally, this alternative would not increase the vulnerability of Base Honolulu or Honolulu Harbor to sea level rise.

4.1.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Short-term construction-related air pollutant and greenhouse emissions would be slightly increased as compared to the Proposed Action and Alternative 1. Nevertheless, for the reasons described for the Proposed Action and Alternative 1, construction-related impact would be minor. Similarly, as described for the Proposed Action and Alternative 1, the implementation of this Alternative 2 would not result in a long-term increase in operational emissions. Additionally, this alternative would not increase the vulnerability of Base Honolulu or Honolulu Harbor to sea level rise.

4.1.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. No construction-related or operational emissions would be generated under the No-Action Alternative and no changes to existing criteria air pollutant and greenhouse gas emissions would occur. Therefore, there would be no impact to air quality and climate change.

4.1.3 Special Procedures

No special procedures would be required. Impacts from the Proposed Action are anticipated to be minor with implementation of standard BMPs, such as implementation of control measures for reducing fugitive dust emissions, and conformance with all applicable federal, state, and local requirements.

4.2 BIOLOGICAL RESOURCES

4.2.1 Approach to Analysis

Determination of the significance of potential impacts to biological resources is based on the following: 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource; 2) the proportion of the resource that would be affected relative to its occurrence in the region; 3) the sensitivity of the resource to proposed activities; and 4) the duration of adverse ecological effects. Impacts to biological resources would be considered significant if federally listed species or federally designated critical habitats would be adversely affected or if such species or habitats would be affected over relatively large areas or disturbances cause reductions in population size or distribution.

The region of influence for biological resources is defined as Base Honolulu and surrounding waters, including the Kapalama Channel and Main Harbor Basin. The threshold for significance is based on whether an action would have a detrimental effect on terrestrial or aquatic habitats, local wildlife, or threatened and endangered species throughout the region of influence, including any actions that would trigger formal consultation with regulatory agencies.

4.2.2 Impacts

4.2.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

<u>Terrestrial Biological Resources</u>

As described in Section 3.2, *Biological Resources*, Honolulu Harbor is highly developed and serves as the principal seaport for Honolulu and the State of Hawaii. No substantial native shoreline vegetation or functionally intact terrestrial habitat occurs at Base Honolulu, and no federally listed or state-listed terrestrial special status plant or wildlife species are known to occur within the project area (USCG 2023). Further, no federally designated critical habitat for terrestrial plant or wildlife species occurs within the project area (USFWS 2022).

Short-term construction impacts associated with the Proposed Action would occur in the immediate vicinity of Berths F and G. Proposed construction and demolition activities would be short-term and associated air emissions and airborne noise would be similar to that already experienced in the industrial Honolulu Harbor. Consequently, impacts to terrestrial biological resources as a result of facilities demolition and construction activities under the Proposed Action would be negligible.

Seabirds protected under the Migratory Bird Treaty Act, such as the wedge-tailed shearwater (*Puffinus pacificus chlororhynchus*), and the federally listed Hawaiian hoary bat could transit the area (USFWS 2022). Seabirds and bats fly at night and are attracted to artificially lighted areas which can result in disorientation and subsequent fallout due to exhaustion or collision with objects that project above the vegetation layer. Once grounded, they are vulnerable to predators and are often struck by vehicles along roadways. Increases in the use of nighttime lighting, particularly during peak fallout periods (September 15-December 15) could result in seabird injury or mortality. Impacts to seabirds can be minimized through shielding outdoor lights associated with the project to the maximum extent possible, eliminating nighttime construction, and disseminating information related to seabird fallout. Implementation of the Proposed Action would not entail any nighttime construction, any introduction of poles, towers, or street lighting, or any changes to existing lights, power lines, or cables. Therefore, the potential for impacts to seabirds or the federally listed Hawaiian hoary bat would be short-term and negligible.

Aquatic Biological Resources

The implementation of the Proposed Action would remove a 1,452 square foot (ft^2) existing floating dock and extent Berth G by approximately 110 feet, spanning approximately 2,750 ft^2. In addition, the proposed Project would remove and replace sixteen (16) 20-to-24-inch piles on existing Berth G and remove six (6) 20-to-24-inch piles supporting the existing floating dock. To support the new pier extensions and floating dock, up to 40 new 24-inch concrete or steel piles (one 48-inch pile and 67 24-inch piles) would be installed. In addition, a mooring dolphin would be installed supported by one 48-inch diameter concrete or steel pile and a catwalk of 123 ft^2 installed to the east of Berth G Expansion. Each component of

the Proposed Action would be located on the existing slope and shoreline without removal/excavation of any areas. The Proposed Action would not involve any dredging of material and would not change the general character of sediment, substrate, or bathymetry within the project area.

Underwater Noise

Waters within the Honolulu Harbor are currently subject to underwater ambient or background noise from both natural sources (e.g., wind, waves, snapping shrimp) as well as anthropogenic sources (e.g., commercial and recreational vessels, shoreline and dock construction activities, and seaplanes) (USACE 2015; Richardson et al. 1995). During construction, pile removal and installation, and operation of construction equipment would temporarily raise underwater noise levels.

All pile removal and installation methods are expected to produce underwater sounds of frequencies typically lower than 2.5 kilohertz (kHz), with the highest intensity of pressure spectral density at or below 1 kHz (Denes et al. 2016; Dahl et al. 2015; Theiss and Reyff 2006). Impact pile driving 24-inch concrete or steel piles is expected to exert a root mean square (RMS) sound pressure level (SPL) of 195 decibels (dB) re 1 micropascal (µPa) normalized to a distance of 33 feet (10 meters) (NMFS 2022c). Since this activity is expected to take up to 286 strikes per pile and up to 4 piles per day, the unattenuated cumulative sound exposure level (SELcum) for impact pile driving has been calculated as 215 dB re 1 µPa squared second (μPa^2s) for both concrete and steel piles (see Table 4-1).

Table 4-1. Noise Generating Project Activities and Associated Noise Levels

Impact Activity	RMS SPL (dB re 1 µPa)	Peak SPL (dB re 1 µPa)	SELss (dB re 1 μPa^2s)	SELcum (dB re 1 μPa^2s)	Strikes per Day
Impact Drive: 24-inch diameter concrete piles	195[a]	211	184[a]	215	1,144 (up to 286 strikes/pile, 4 piles/day)
Impact Drive: 24-inch diameter steel piles	195[a]	211	184[a]	215	1,144 (up to 286 strikes/pile, 4 piles/day)

Impact Activity	RMS SPL (dB re 1 µPa)	Peak SPL (dB re 1 µPa)	SELss (dB re 1 µPa²s)	SELcum (dB re 1 µPa²s)	Strikes per Day
Impact Drive: 48-inch diameter concrete piles	183[d]	193	167[d]	190	204 (up to 204 strikes / pile, 1 pile / day)
Impact Drive: 48-inch diameter steel piles	195[e]	210	179[e]	202	200 (up to 200 strikes / pile, 1 pile / day)
DTH Pile Driving: 24-inch concrete piles; Percussive Hammer Strikes	167[b]	211	159[b]	210	120,000 (50 min / pile, 10 strikes / second, 4 piles / day)

Acronyms: RMS = root mean square; SPL = sound pressure level; dB = decibel; SELss = single strike sound exposure level; SELcum = cumulative sound exposure level; re 1 µPa = referenced to 1 micropascal; re 1 µPa²s = referenced to 1 micropascal squared second.
[a] Illingworth & Rodkin 2017
[b] NMFS 2022a
[c] Naval Facilities Engineering Systems Command Southwest (NAVFAC SW) 2020
[d] Washington Department of Transportation (WSDOT) 2020
[e] California Department of Transportation (Caltrans) 2020

Increased noise levels would last only for the duration of project construction (i.e., maximum of 6 months). Additionally, BMPs including the use of cushion pads and / or bubble curtains during pile driving and mufflers on equipment would be implemented to reduce noise generated during construction. Once the project is completed, there would be no long-term effect on ambient noise levels.

Details related to the effects of noise on forage fish and invertebrates, sea turtles, and the Hawaiian monk seal are discussed further below.

Water Quality

Ambient turbidity levels in Honolulu Harbor are high and constitute water quality impairment. Turbid conditions are a result of sediment-laden stream discharge and frequent passage of large vessels that resuspend bottom sediment (USACE 2015).

The removal of existing piles by vibratory extraction and / or pile clipping and installation of their replacements using a down-the-hole (DTH) drill and impact hammer would result in localized re-suspension of sediment from the piles and surrounding benthic habitat. These activities would adversely affect water quality by temporarily increasing turbidity and decreasing dissolved oxygen (DO). These

sediments may also contain containments since they have been suspended within Honolulu Harbor which contains a variety of contaminants that have accumulated over decades of industrial use. Therefore, construction activities associated with the Proposed Action have the potential to impart direct impacts on water quality in the project area and the surrounding vicinity.

The level of total suspended sediments sufficient to cause adverse effects on the species of concern would be very limited in extent and duration. In addition, the implementation BMPs, including the use of turbidity curtains and the implementation of a turbidity monitoring plan would further reduce the potential for increased turbidity. Therefore, any temporary increases in turbidity are expected to be localized and short-term and are not expected to result in long-term degradation of the existing water quality conditions within the project area.

The Proposed Action would also involve the cutting of concrete pilings which has the potential to affect pH and water quality in the area. Concrete may carry by-products, including silica, cadmium, and other pollutants. It may also be highly alkaline, potentially raising the pH of any waterbody it may enter and harming the associated aquatic life. However, the amount of concrete particles that would be generated by the cutting of existing pilings is not anticipated to be enough to cause a change in the overall pH of the surrounding marine environment or create more than a negligible effect on water quality parameters.

Forage Fish and Invertebrates

As described in Section 3.2, *Biological Resources*, the benthic surveys performed in March 2023 identified 25 fish species in the survey area including boxfish, butterflyfish, cardinalfish, damselfish, eels, goatfish Moorish idols, parrotfish pufferfish, snappers, squirrelfish, surgeonfish, triggerfish wrasses. Sea urchins were the most abundant non-coral invertebrates observed throughout Berths F and G. These included *Tripneustes gratilla*, *Echinometra mathaei*, *Diadema paucispinum*, and *Echinothrix diadema*.

If fish and invertebrates occur within the project area during pile removal and installation activities, they could experience temporary shifts in hearing threshold (i.e., a temporary reduction in hearing ability) and behavioral effects. The physical

and behavioral effects on fish and invertebrates from pile driving noise would be temporary, occur only during underwater noise-related construction activities. In addition, most affected individuals would be expected to move away from pile-driving activities to an area with similar habitat, after which, underwater noise levels are expected to immediately return to ambient levels and displaced individuals should return. Some fish and invertebrates may be disoriented or even incur an increased risk of mortality through predation. Since the population of forage fish and invertebrates are abundant in the harbor, channels, and nearshore areas, these species would be expected to return when noise activities and construction has been completed. Therefore, any temporary increases in underwater noise levels are not expected to result in long-term impacts on forage fish and invertebrates within the project area.

Essential Fish Habitat

A site visit with NMFS on September 8, 2023, confirmed that coral communities are only located within the Berth G Lateral Extension (see Section 4.2.2.3, *Alternative 2: Lateral Extension,* below). Since the Proposed Action does not include any activities in the Berth G Lateral Extension area, its implementation would not cover or otherwise reduce light penetration to any coral habitat.

Nevertheless, the implementation of the Proposed Action may also decrease water quality through turbidity during the removal and installation of piles. Turbidity could include the resuspension of contaminated sediments that have accumulated over decades in the Honolulu Harbor. Pile driving activities could increase turbidity within 300 feet and resuspended sediments is expected to settle in a few hours (NMFS 2023b). Since the project area is frequently exposed to increased turbidity from propellor wash and increased runoff during storm events, the corals in the project area are subjected to turbidity regularly. Therefore, impacts related to temporary increases in turbidity would be short-term and minor.

Noise has the potential to affect EFH due to disturbance or injury of prey for MUS However, these impacts would be short-term and minor. As described in the *Forage Fish and Invertebrates* discussion, any temporary increases in underwater noise levels are not expected to result in long-term impacts on forage fish and invertebrates within the project area.

The introduction of invasive species could lead to the establishment of nonnative and/or invasive species. Invasive plants and algae can outcompete with native species that are already present. Invasive animal populations can outcompete native populations for food and other resources. This effect could transform the amount, type, and/or distribution of important prey or forage species for MUS. Prior to mobilizing, the construction contractor would ensure all construction equipment, ballast, and vessel hulls do not pose a risk of introducing new invasive species and would not increase abundance of those invasive species present in Honolulu Harbor. With the implementation of this BMP, the risk to marine species assemblages from the introduction of nonnative, invasive species from would be negligible. Therefore, the introduction on invasive species is expected to have negligible impacts.

Federally Listed Threatened and Endangered Species

As previously described, increased underwater noise levels are expected to occur during implementation of the Proposed Action, primarily due to equipment use associated with pile removal and installation activities. Additional noise from in-water construction activities may affect foraging behavior of sea turtles and the Hawaiian monk seal, causing them to avoid foraging areas during active construction. Some construction-related activities have potential to injure federally listed species if within close proximity.

Under the MMPA, NMFS has defined levels of harassment for marine mammals. In the MMPA, Level A Harassment is defined as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild." Level B Harassment is defined as "any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to migration, breathing, nursing, breeding, feeding, or sheltering."

Impact pile driving of concrete or steel piles is considered the loudest potential in-water activity associated with the Proposed Action. Therefore, the area of potential in-water impact for the Honolulu Harbor was determined to extend to the point at which the underwater noise would fall below the behavioral (Level B) noise disturbance threshold set by NMFS for the Hawaiian monk seal and sea turtle

species based on this activity. Figure 3 includes these injury and behavioral distances for the Hawaiian monk seal and Figure 4 includes these injury and behavioral distances with respect to the project footprint. The proposed Project would have a Protected Species Observer (PSO) on-site during any underwater noise activities to monitor the Level A (injury) and Level B (behavioral) zones of green and hawksbill sea turtles and Hawaiian monk seals. If a federally listed species entered their respective Level A or Level B zones, the PSO would have authority to shut down project operations until the individual has exited the Level B zone. Additional BMPs related to noise are included in Section 4.2.3, *Special Procedures*.

Vessel strikes are a major threat to sea turtles and are one of the most common causes of sea turtle strandings in the U.S. Many of these strikes occur in high vessel traffic areas, inlets, and harbors (NMFS 2021). Although monk seals also experience mortality and injury through vessel strikes, they are much less likely to occur. In recent years, only one Hawaiian monk seal in 2015 was reported as likely killed by a vessel strike (NMFS 2022b). Construction activities associated with the Proposed Action would require up to three vessels (i.e., one barge, one tug, and one skiff). The support vessels are expected to remain at the construction site for most of the construction period but may make daily movements to carry out construction activities. These movements are considered insignificant and relatively minor within busy marine harbor areas, such as those associated with the Base Honolulu. Given the BMPs (see Section 4.2.3, *Special Procedures*), the relatively low number of construction vessels required at project area, the slow speed at which the required vessels would operate, and the short duration of many of the activities impacts associated with vessel strikes would be minor.

As previously described, short-term, localized decreases in water quality could occur due to increased turbidity during pile removal and installation. Turbidity can impact sea turtles and the Hawaiian monk seals as water clarity could be affected and thereby decreasing foraging ability. However, since Honolulu Harbor is already marginal foraging habitat, effects from decreased visibility would be minor. With the implementation of BMPs including the installation of turbidity curtains and implementation of a turbidity monitoring plan (see Section 4.2.3, *Special Procedures*), impacts from turbidity are expected to be short-term and minor.

Figure 3: Level A (Injury) and Level B (Behavioral) Zones For the Hawaiian Monk Seal WLB Mooring and Structural Pier Upgrades

Figure 4: Level A (Injury) and Level B (Behavioral) Zones For Green and Hawksbill Sea Turtles WLB Mooring and Structural Pier Upgrades

Modification to Federally Designated Critical Habitat

As described in Section 3.2, *Biological Resources*, the project area contains proposed federally designated critical habitat for the green sea turtle. The project area contains marginal foraging habitat for the green sea turtle as seagrass is not present, but it is likely that marine algae and invertebrates are present to some degree. Avoidance of construction noise and activity within the project area could cause green sea turtles to temporarily lose the use of foraging or refuge habitats. However, noise from pile removal and driving activities would be relatively short-term (i.e., maximum of 6 months). Affected individuals are expected to move away from the project area to areas with similar habitat types and either remain in their new location, or return to the project shortly after in-water construction has been completed. Increased turbidity could also reduce the quality and quantity of available foraging species within 300 feet of the project area. However, with the implementation of BMPs including the installation of a turbidity curtain and the implementation of a turbidity monitoring plan (see Section 4.2.3, *Special Procedures*), indirect effects from turbidity are expected to be short-term, and localized.

As previously described, the Proposed Action would involve the construction of over-water coverage of up to 2,880 ft^2. This would decrease light penetration and productivity of marine algae, and therefore decrease the available foraging habitat in the harbor. However, since green sea turtles are rare in the project area and have not been known to forage or rest within the project area, it is unlikely that this small modification in light penetration would have impacts on the abundance, distribution, and density of proposed federally designated critical habitat in nearby nearshore waters that the green sea turtle is known to forage and resting.

4.2.2.2 Alternative 1: Precast Floating Dock

In addition to the elements described for the Proposed Action (refer to Section 2.1, *Proposed Action*), the USCG is considering an option to construct a new precast concrete floating dock that would attach to the east side of the new fixed Pier G via a small gangway, occupying space off the Berth F area. This floating dock would cover an additional area of up to 2,625 ft^2 and would be supported by eight new 24-inch diameter concrete or steel piles.

Impacts to biological resources associated with this alternative would be similar to those described for the Proposed Action. However, short-term construction-related impacts would be slightly more adverse as a result of a larger disturbance area, the installation of more piles, and a slightly longer construction period. Additionally, long-term impacts would be slightly more adverse than those described for the Proposed Action due to the increase total overwater coverage. However, it should be noted that a site visit with NMFS on September 8, 2023, confirmed that coral communities are not located within the footprint of the Berth F Floating Dock. Therefore, as described for the Proposed Action while corals within the vicinity of the project area could experience temporary increases in turbidity, there would be no long-term impacts associated reductions in light penetration.

4.2.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. This lateral extension would cover an additional area of up to 1,335 ft^2 and would be supported by up to 19 new 24-inch concrete or steel piles.

Impacts to biological resources associated with this alternative would be similar to those described for the Proposed Action and Alternative 1. However, short-term construction-related impacts would be slightly more adverse as a result of a larger disturbance area, the installation of more piles, and a slightly longer construction period. Additionally, long-term impacts would be slightly more adverse than those described for the Proposed Action due to the increase total overwater coverage.

A site visit with NMFS on September 8, 2023, confirmed that coral communities are only located within the footprint of the Berth G Lateral Extension and not within the deeper areas at Berth G Expansion (Proposed Action) and Berth F Floating Dock (Alternative 1). Thus, the Proposed Action may cover up to 1,335 ft^2 of coral habitat. The increased overwater coverage would reduce light penetration to the benthic communities. Reduced light would negatively impact coral communities since their algal symbionts require sunlight to photosynthesize. It is

expected that over time, there would be a permanent loss of corals in this area of reduced light. The area is expected to have lower reef function but still be marginal habitat and refuge areas.

To minimize impacts on corals due to habitat conversion (shading) and loss (piles), the USCG would translocate corals to the maximum extent practicable (see Section 4.2.4, *Minimization Measures*). Additionally, any unavoidable loss would be offset by one or more options that would directly or indirectly benefit corals and/or water quality. Once the project design has been finalized, the USCG would perform detailed coral and benthic habitat surveys to determine the area, size, and number of corals that would need to be translocated and the area, size, and number of corals that would incur unavoidable loss since some corals cannot be translocated without damage. The former would be included in a Coral Translocation Plan that would include predetermined sites that the USCG and NMFS would agree upon. To offset any unavoidable loss, the USCG would implement one or more offset measures or projects that would benefit coral species and water quality in the vicinity of the project area. The final areas for habitat conversion and loss, and destinations of translocated corals and offsets would be determined when the final project design has been selected by the USCG and NMFS has approved the translocation and offset measures.

4.2.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. There would be no shoreside or in-water construction activities. Therefore, no short-term construction-related or long-term operational impacts to terrestrial or aquatic biological resources would occur under this alternative

4.2.3 Special Procedures

The final project design would include the implementation of proposed BMPs agreed to by NMFS (see Appendix C) to minimize potential impacts on forage fish and invertebrates, essential fish habitat, federally listed species, and federally designated critical habitat:

1. Prior to mobilizing, the contractor shall ensure that all construction equipment, ballast, and vessel hulls do not pose a risk of introducing new invasive species and will not increase abundance of those invasive species present in Honolulu Harbor.

2. Where practicable, the USCG shall perform in-water work at low / slack tides, and when the sea is calm.

3. To the maximum extent practicable, the USCG shall lower equipment and material in a controlled manner.

4. Piles shall be constructed of concrete or steel. All concrete grout, cement, and sealant used shall be non-toxic and non-hazardous to aquatic organisms.

    a. Materials and equipment that enter the water shall be clean and free of pollutants.

5. Temporary in-water tethers, as well as mooring lines for vessels and marker buoys shall remain taut to the minimum length necessary and shall remain deployed only as long as needed.

6. When piloting vessels, vessel operators will alter course to remain at least 328 feet (100 meters) from whales, and at least 164 feet (50 meters) from other marine mammals and federally listed marine animals.

    a. Reduce vessel speed to 10 knots or less when piloting vessels in proximity of federally listed marine mammals, sharks, and rays; and 5 knots or less in areas of suspected sea turtle activity.

    b. If a marine mammal or turtle approaches the vessel, the vessel operator shall put the engine in neutral until the animal is at least 50 feet (15 meters) away.

7. To the maximum extent possible, project-related debris shall not enter the water. A temporary floating debris boom shall be installed around all work located below the high tide line.

8. The contractor shall be required to implement a Storm Water Pollution Prevention Plan (SWPPP) to control/eliminate stormwater runoff from entering the harbor.

9. Concrete for decking shall be pumped into watertight forms.

10. The contractor shall ensure that construction equipment is maintained in good condition without hydraulic fluid leaks.

    a. Daily equipment checks shall be conducted for leaks or drips.

    b. It shall be mandatory to use drip pans when parking construction equipment

    c. Fueling of land-based vehicles and equipment shall take place at least 50 feet (15 meters) away from the water (and away from drains), preferably over an impervious surface.

    d. A contingency plan to control toxic materials shall be developed and followed to prevent toxic materials from entering or remaining in the marine environment during the project.

    e. On site, spill kits with appropriate materials for cleaning and containing spills shall always be available.

11. During all in-water and over-water work that may increase turbidity (e.g., pile removal, cutting, installation), silt curtains shall completely enclose the work area to the maximum extent practicable to reduce the potential for sediments to leave the immediate vicinity.

    a. Silt curtains shall be monitored for damage, dislocation, or gaps on a daily basis, and immediately repaired where any such damage or issues are detected.

    b. The contractor shall conduct turbidity monitoring in accordance with CWA Section 401 standards. This monitor shall have project

shut down authorization if turbidity levels exceed levels in permit standards.

12. Pile driving shall employ soft-start or ramp-up techniques (slow increase in hammering intensity), at the start of each workday or following any break of more than 30 minutes.

13. Pile driving shall occur during normal business hours (i.e., 8 am to 5 pm) and when no sea turtles or marine mammals have been observed in the areas of impact for these species.

14. A PSO competent in the identification of marine mammals and sea turtles shall ensure that the permanent threshold shift (PTS) and behavioral isopleth zones are clear of those species 30 minutes prior to underwater noise activities, following any break of more than 30 minutes, and for 30 minutes following the daily conclusion of pile driving.

    a. The observer shall monitor the area of noise impact continuously throughout each day during in-water activities and shall have the authority to halt operations if a marine mammal or sea turtle enters its area of impact.

    b. The PSO shall ensure they have visibility of the entire area of noise impact.

    c. For some activities, this may entail more than one PSO to ensure suitable coverage.

    d. For non-pile related activities, work shall be postponed or halted when a marine mammal or sea turtle is within 164 feet (50 meters) of the non-pile related work, and shall only begin / resume after the animals has voluntarily departed the area.

        i. If a marine mammal or sea turtle is noticed within 164 feet (50 meters) after work has already begun, then work may

continue only if, in the best judgement of the PSO, the activity would not adversely affect (i.e., disturb or harm) the animal.

e. For pile removal/installation, operations shall halt when any sea turtles or marine mammals are within their area of noise impact. This area differs for marine mammals and sea turtles. Operations may not resume until that species has voluntarily departed its area of impact.

    i. For all marine mammals including the Hawaiian monk seal, this distance is up to 3.92 miles (6,309.6 meters) (limited to the area of Honolulu Harbor).

    ii. For sea turtles, this distance is up to 328 feet (100 meters).

15. The USCG shall submit a report to NMFS within 90 calendar days upon the completion of the project including the following information:

    a. Observer logs. All interactions with marine mammals and sea turtles must be documented.

    b. Monitoring logs shall be completed daily. If no federally listed species are observed, the observer shall record "0" in the daily report.

    c. The monitoring logs shall be submitted in a digital format to NMFS, with the following information:

        i. Total hours and dates of monitoring including time of arrival and departure and time of pile driving commences and finishes

        ii. Identification of which federally listed species were observed and in what location and circumstances, including date, time, numbers of individuals of species observed, the outcome of the species observance relative to the authorized project, and any factors which may have affected visibility,

iii. If applicable, observed federally listed species behaviors and movement types relative to the project activity at time of observation, and

iv. Any work stoppage, and length of stoppage time.

4.2.4 Proposed Minimization and Offset Measures

In addition to the proposed BMPs agreed to by NMFS, the USCG is working with NMFS and DLNR-DAR to identify appropriate coral translocation areas to minimize loss, and potential projects or activities that would offset any unavoidable loss of corals. These offset measures are intended to benefit coral habitat and/or water quality in the vicinity of the project area.

4.2.4.1 Minimization Measures

Coral Translocation

DLNR-DAR is the primary agency for coordinating reef management efforts in the Main Hawaiian Islands (DLNR-DAR 2023). If the implementation of Alternative 3 is determined to create over-water coverage on individual corals, the USCG would work with NMFS and DLNR-DAR to develop a Coral Translocation Plan. This plan would include specifics on numbers of individual corals that would need to be translocated, potential recipient locations, translocation method, installation methods, and a monitoring plan that would ensure the translocations are successful. Generally larger, non-encrusting corals would be translocated. Smaller corals and encrusting corals would not be as successful to translocate.

Since Harbor Porites are present at Base Honolulu, only sites within Honolulu Harbor would be appropriate recipient sites for these corals to minimize any further spread of this non-native species. Corals that would be translocated would be of sufficient size and species that are known to successfully translocate.

Potential areas for translocation include Pier 5/6 on the north side of the Main Harbor, Berth A at Base Honolulu, and areas on Berth F where coral coverage permits. Other potential sites may be suitable and would be included in the

planning. Corals would be translocated in approximately the same depth of water of their origin, or slightly deeper. Recipient sites would be surveyed prior to selection to determine suitability and approved by NMFS and DLNR-DAR. The timing of coral translocation would not coincide with any sensitive spawning windows.

Offset Measures

For corals that are not possible to translocate due to size or type (i.e., encrusting corals), the USCG is considering several options to offset these unavoidable losses. These options include the following, which are described in more detail in Appendix C:

- Submerged Debris Cleanup on Base
- Water Quality Enhancement Projects on Base
- Anuenue Fisheries Research Center Water Intake Pump

These offsets would benefit corals and/or water quality directly or indirectly. The USCG is currently scheduling a re-survey of the area at Berth G Lateral Extension to determine the numbers, sizes, and species of corals that may be impacted by the proposed Project. The USCG would try to minimize the area of corals that would be covered by reducing the project footprint with the finalized design. Using survey results, the USCG would estimate the amount of unavoidable loss the proposed Project would incur and would work with NMFS and DLNR-DAR to determine the appropriate offsets that would be required. The following are example projects that may be appropriate offsets for unavoidable loss. Additional projects may be identified as the project progresses, and the USCG would discuss and future options with NMFS and DLNR-DAR.

4.3 CULTURAL RESOURCES

4.3.1 Approach to Analysis

Significance evaluation is the process by which cultural resources are assessed relative to significance criteria for scientific or historic research, for the general

public, and for traditional cultural groups. Only cultural resources determined to be significant (e.g., eligible for the NRHP) are protected under the NHPA.

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts can be assessed by determining the exact locations of cultural resources that could be affected by implementation of an action. Direct impacts may occur by: 1) physically altering, damaging, or destroying all or part of a resource; 2) altering the characteristics of the surrounding environment that contribute to resource significance; 3) introducing visual, audible, or atmospheric elements that are out of character with the property or alter its setting; or 4) neglecting the resource to the extent that it is deteriorated or destroyed. Indirect impacts primarily result from the effects of project-induced population increases and the resultant need to develop new housing areas, utilities services, and other support functions necessary to accommodate population growth. The subsequent growth from these activities and facilities can disturb or destroy cultural resources.

4.3.2 Impacts

4.3.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Construction-related impacts to cultural resources at Base Honolulu would consist of potential disturbances during the proposed removal of the existing floating dock and the construction of the fixed, pile-supported pier extension at Berth G. However, the USCG has operated at Base Honolulu since 1945 and the long history of operations at the site limits the potential for undiscovered archaeological or cultural resources to occur within the vicinity of Base Honolulu. No known buried archaeological resources are located within the project area. Nevertheless, while unlikely, the potential does still exist for historic artifacts or buried human remains to be uncovered during ground-disturbing activities. If such resources were uncovered, the USCG would comply with all applicable federal, state, and local regulations regarding incidental finds. Activities would be suspended until a qualified archaeologist and/or Native Hawaiian representative could determine the significance of such resource(s) (see Section 4.3.3, *Special Procedures*). Based on information currently available, the potential for construction-related impacts under the Proposed Action to cultural resources would be negligible.

None of the buildings located within or near Base Honolulu are recognized as historically significant structures. Therefore, implementation of the Proposed Action and the presence of the proposed in-water infrastructure would have no impact on any such structures, either directly (e.g., through demolition) or indirectly (e.g., through visual impacts affecting the historic context of the resource). Therefore, long-term impacts to cultural resources resulting from implementation of the Proposed Action would be negligible.

4.3.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. Short-term construction and long-term operational impacts to cultural resources associated with this alternative would be similar to those identified for the Proposed Action. Alternative 1 would not result in construction-related impacts or operational impacts to archaeological, traditional, or historical resources.

4.3.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Short-term construction and long-term operational impacts to cultural resources associated with this alternative would be similar to those identified for the Proposed Action. Alternative 2 would not result in construction-related impacts or operational impacts to archaeological, traditional, or historical resources.

4.3.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. No ground-disturbing construction activities would occur and there

would be no potential for construction-related impacts or operational impacts to archaeological, traditional, or historical resources.

4.3.3 Special Procedures

The potential exists, however slight, for previously undiscovered historic artifacts and/or human remains to be uncovered during ground-disturbing activities. If such resources were uncovered, the USCG would comply with all applicable federal, state, and local regulations regarding incidental finds. Activities would be suspended until a qualified archaeologist and/or Native Hawaiian representative could determine the significance of such resource(s).

4.4 GEOLOGICAL RESOURCES

4.4.1 Approach to Analysis

Protection of unique geological features, minimization of soil erosion, and the siting of facilities in relation to potential geologic hazards are considered when evaluating impacts of an action on geological resources. Generally, such impacts can be avoided or minimized with proper construction techniques, erosion control measures, and structural engineering designs are incorporated into project development.

Analysis of potential impacts to geological resources typically include: 1) identification and description of resources that could potentially be affected; 2) examination of the action and the potential effects it may have on the resource; 3) assessment of the significance of potential impacts; and 4) provision of mitigation measures in the event that potentially significant impacts are identified. A description of impacts related to the proposed shoreside and in-water construction activities at Base Honolulu are provided below.

4.4.2 Impacts

4.4.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Geology, Topography, and Soils

Potential geologic impacts associated with the Proposed Action at Base Honolulu would be limited to minor ground-disturbing construction activities associated with the proposed removal of the existing floating dock and the construction of the fixed, pile-supported pier extension at Berth G. However, with the exception of minor utility upgrades (e.g., a new switch and circuit breaker, isolation transformer, motor control center, additional conduit, and power mound to meet WLB requirements) the vast majority of construction activities would occur in-water. All shoreside construction activities (e.g., minor utilities improvements) would occur on previously disturbed and developed land and would not affect unique geological features. No areas of shallow or exposed bedrock are present within the areas of waterfront and shoreside improvements under the Proposed Action. Base Honolulu is relatively level and does not present any topographic constraints. Impacts related to geology, topography, and soils would be short-term and negligible.

Geologic Hazards

The proposed extension of Berth G would comply with modern seismic safety standards under the International Building Code. These improvements would make the berth more resilient to geologic hazards. Therefore, implementation of the Proposed Action would result in minor beneficial impacts related to overall reductions in potential vulnerability to geologic hazards. Impacts with regard to natural hazards issues are also discussed in Section 4.6, *Safety*.

4.4.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier,

occupying space off of Berth F. Short-term construction and long-term operational impacts to geological resources associated with this alternative would be similar to those identified for the Proposed Action since the proposed shoreside and in-water construction elements would be nearly identical.

4.4.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Short-term construction and long-term operational impacts to geological resources associated with this alternative would be similar to those identified for the Proposed Action since the proposed shoreside and in-water construction elements would be nearly identical.

4.4.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. No ground disturbance would occur under the No-Action Alternative and therefore would be no impact to geological resources. However, there would be no improvements to the existing in-water infrastructure; therefore, potential benefits related to overall reductions in potential vulnerability to geologic hazards would not be achieved.

4.4.3 Special Procedures

No special procedures would be required. Impacts to geological resources as a result of the Proposed Action and its alternatives would be short-term and minor.

4.5 HAZARDOUS MATERIALS AND WASTES

4.5.1 Approach to Analysis

Numerous federal, state, and local laws regulate the storage, handling, disposal, and transportation of hazardous materials and wastes; the primary purpose of these laws is to protect public health and the environment. The significance of

potential impacts associated with hazardous substances is based on their toxicity, ignitability, and corrosivity. Impacts associated with hazardous materials and wastes would be significant if the storage, use, transportation, or disposal of hazardous substances substantially increases the human health risk or environmental exposure.

4.5.2 Impacts

4.5.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Storage of Hazardous Materials and Wastes

During implementation of the Proposed Action, there would be a temporary increase in the storage of hazardous materials and wastes at Base Honolulu throughout the proposed construction activities. However, the increase in construction-related hazardous materials and wastes would be temporary and negligible in the context of ongoing operations at Base Honolulu. With the Waste Management Compliance Guide in place at Base Honolulu, impacts to hazardous materials and wastes and associated human and environmental health concerns resulting from implementation of the Proposed Action would be negligible.

Inadvertent Spills

Although contaminant spills or leaks from project vessels could occur and affect water quality, the likelihood of such spills is relatively low. Construction vessel crews subcontracted by the USCG would use established ports and channels with depths sufficient for the safe navigation of boat traffic to minimize the likelihood of vessel grounding. In addition, they would be required to abide by all project-specific BMPs established to prevent collisions or accidental spills and leaks (refer to Section 4.2.3, *Special Procedures*). This includes the implementation of a SWPPP to control/eliminate stormwater runoff from entering the harbor, and a spill kit readily onsite during all activities.

If spills do occur, the volume and relative area that would be affected by the resulting concentrations of contaminants in the surrounding environment would

be small. Further, construction activities require the increase in the number of vessels by a maximum of three (i.e., one barge, one tugboat, and one skiff) within the vicinity of the project area for no longer than 6 months. Therefore, the potential for vessel-related pollution during construction of the Proposed Action is likely to be minor compared to that caused by the heavy background vessel traffic activity (e.g., commercial and recreational vessels, cruise ships, and fishing boats) within the busy harbor.

4.5.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. Short-term construction-related impacts would be slightly more adverse as a result of a larger disturbance area, the installation of more piles, and a slightly longer construction period. Nevertheless, with the Waste Management Compliance Guide in place at Base Honolulu as well as the implementation of standard BMPs (refer to Section 4.2.3, *Special Procedures*) short-term construction impacts related to hazardous materials and wastes would be negligible.

4.5.2.3 Alternative 2: Lateral Pier Extension

In addition to the impacts described above, construction of a small lateral pier extension would result in a temporary increase in construction-related hazardous materials, wastes, and storage requirements. However, the increase in construction-related hazardous materials and wastes would be short-term and with implementation of special procedures and Spill Contingency Measures, impacts would be negligible. No changes to existing fuel storage or distribution systems would be required under implementation of Alternative 2, and related impacts would be negligible.

4.5.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base

Honolulu. No construction-related activities would occur under the No-Action Alternative and therefore would be no impact related to hazardous materials and wastes.

4.5.3 Special Procedures

The USCG would continue to implement the Waste Management Compliance Guide in place at Base Honolulu. Additionally, the USCG would also be required to abide by all project-specific BMPs established to prevent collisions or accidental spills and leaks (refer to Section 4.2.3, *Special Procedures*).

4.6 SAFETY

4.6.1 Approach to Analysis

If implementation of an action would substantially increase risks associated with health and safety relevant to the public or the environment, it would represent a significant impact. For example, if an action involved a potential for increase in seismicity or natural hazards associated with high waves or storms, public safety could be compromised.

4.6.2 Impacts

4.6.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

As described in Section 3.6, *Safety*, natural hazards routinely threaten Oahu's coastal inhabitants and infrastructure due to the presence of extensive shoreline development. Implementation of the Proposed Action would result in limited shoreside improvements (e.g., minor utilities improvements) and reconfigured moorings at Base Honolulu; however, these developments would be similar in nature to the existing infrastructure at Base Honolulu and would not compound natural hazards. Rather, the proposed extension of Berth G would comply with modern seismic safety standards under the International Building Code. These improvements would make the berth more resilient to geologic and natural hazards. Therefore, the implementation of the Proposed Action would result in

minor beneficial impacts related to overall reductions in potential vulnerability to natural hazards.

However, it should also be noted that the proposed development of a berth for the 225-foot WLB would create a triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Forklifts or other equipment entering Berth G would need to make a tight turn to avoid buildings and other infrastructure in this area. This would introduce a minor operational safety impact for personnel at Base Honolulu that could only be addressed through the small lateral pier extension described for Alternative 2.

4.6.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. Short-term construction and long-term operational impacts to safety associated with this alternative would be similar to those identified for the Proposed Action since the proposed shoreside and in-water construction elements would be nearly identical.

4.6.2.3 Alternative 2: Lateral Pier Extension

As previously described the proposed development of a berth for the 225-foot WLB would create a triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Forklifts or other equipment entering Berth G would need to make a tight turn to avoid buildings and other infrastructure in this area. This would introduce a minor operational safety impact for personnel at Base Honolulu. This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure. This lateral extension would allow safer personnel, equipment, and vehicle transit to and from the Berth G area and would result in minor beneficial impacts related to safety.

4.6.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. No construction activities would occur under the No-Action Alternative and therefore would be no impact to safety. However, there would be no improvements to the existing in-water infrastructure; therefore, potential benefits related to overall reductions in potential vulnerability to natural hazards would not be achieved.

4.6.3 Special Procedures

No special procedures would be required. Impacts to safety as a result of the Proposed Action and its alternatives would be minor and, in some instances, beneficial.

4.7 VISUAL RESOURCES

4.7.1 Approach to Analysis

Determination of the significance of impacts to visual resources is based on the level of visual sensitivity in the area. Visual sensitivity is defined as the degree of public interest in a visual resource and concern over adverse changes in the quality of that resource. Visual impacts resulting from implementation of the Proposed Action would be considered significant if there would be a substantial contrast with the existing character of the area, views or viewpoints would be substantially degraded, and/or if sensitive viewers were substantially affected.

4.7.2 Impacts

4.7.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Implementation of the Proposed Action would result in short-term visual impacts associated with the operation of heavy construction equipment in the vicinity of the project area. However, Base Honolulu is located within an industrial harbor setting and is not readily visible from public access points, with the nearest

recreational area located approximately 0.2 miles southeast. In addition, construction impacts would be temporary. Therefore, short-term visual impacts associated with implementation of the Proposed Action would be minor.

Upon completion of construction, shoreside and in-water components associated with the Proposed Action would be visually consistent with the existing structures at Base Honolulu. The proposed mooring configurations would not be substantially different relative to the existing industrial character of the waterfront. Due to the low public visibility of Base Honolulu, the area is not considered a sensitive visual environment. Given the limited scale of the visual alteration and the low sensitivity of the area, long-term impacts to visual resources would be negligible.

4.7.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. Short-term construction impacts to visual resources associated with this alternative would be similar to those identified for the Proposed Action, though the use of heavy construction equipment within the project area may occur for a slightly longer period of time. With regard to long-term impacts this alternative would introduce a new visual element; however, the pre-cast floating dock would not be substantially different relative to the existing industrial character of the waterfront. Therefore, short-term construction-related impacts and long-term impacts to visual resources would be negligible.

4.7.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. Short-term construction impacts to visual resources associated with this alternative would be similar to those identified for the Proposed Action and Alternative 1, though the use of heavy construction equipment within the project area may occur for a slightly longer period of time. As described for the Proposed

Action and Alternative 1, construction of a small lateral pier extension would be visually consistent with the developed nature and character of Base Honolulu and the industrial Honolulu Harbor. As this area is not considered a sensitive visual environment and public visibility is low, impacts would be negligible.

4.7.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. No construction-related activities would occur under the No-Action Alternative and therefore would be no impact related to visual resources.

4.7.3 Special Procedures

No special procedures would be required. Construction-related impacts to visual resources as a result of the Proposed Action and its alternatives would be short-term and minor. Long-term impacts associated with the proposed mooring configurations would be negligible.

4.8 WATER RESOURCES

4.8.1 Approach to Analysis

Significance of potential impacts to water resources is based on water availability, quality, and use; existence of floodplains and wetlands; and associated regulations. An impact to water resources would be significant if it would: 1) reduce water availability or interfere with the water supply of existing users; 2) create or contribute to overdraft of groundwater basins or exceed safe annual yield of water supply sources; 3) adversely affect water quality or endanger public health by creating or worsening adverse health hazard conditions; 4) threaten or damage unique hydrologic characteristics; or 5) violate laws or regulations that have been established to protect or manage water resources of an area. Impacts of flood hazards would be significant if any alternative is proposed in areas with high probabilities of flooding.

4.8.2 Impacts

4.8.2.1 Proposed Action: Berth G Extension and Removal of Existing Floating Dock

Surface Water

Ground-disturbing activities associated with the Proposed Action would include construction adjacent to and within Honolulu Harbor. Construction activities have the potential to impact local water quality through equipment leaks and surface water runoff. Implementation of standard BMPs would reduce the potential for surface water impacts associated with these activities, including transport of any toxic or foreign material into marine habitat. For example, as described in Section 4.2.3, *Special Procedures*, the construction contractor would be required to prepare a SWPPP as a condition under the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Clean Water Branch permitting processes.

Some temporary, localized increases in turbidity (as measured by suspended sediment concentration) may occur during pile installation. Elevated concentrations of suspended sediment are expected to be confined primarily to the bottom near the contact point of the piles. Levels of total suspended sediments sufficient to cause adverse effects on the species of concern would be very limited in extent and duration (refer to Section 4.2, *Biological Resources*). In addition, proposed BMPs, including the use of turbidity curtains and the implementation of a turbidity monitoring plan (refer to Section 4.2.3, *Special Procedures*) would further reduce the potential for increased turbidity. With implementation of standard BMPs, impacts to surface waters resulting from construction activities would be minor.

The Proposed Action would also involve the cutting of concrete pilings which has the potential to affect pH and water quality in the area. Concrete may carry by-products, including silica, cadmium, and other pollutants. It may also be highly alkaline, potentially raising the pH of any waterbody it may enter and harming the associated aquatic life. However, the amount of concrete particles that would be generated by the cutting of existing pilings is not anticipated to be enough to

cause a change in the overall pH of the surrounding marine environment or create more than a negligible effect on water quality parameters. In addition, during the extension of Berth G there is the potential for uncured concrete to come into contact with surface water; however, with implementations of BMPs it is unlikely.

Long-term operations at Base Honolulu would not be substantially altered as a result of the Proposed Action. Existing drainage catchment areas would continue to channel surface water flow from shoreside areas for discharge into the harbor area. Long-term impacts associated with drainage would be negligible.

Groundwater

The Proposed Action would not substantially alter the permeability of surfaces or surface area available for groundwater recharge. Shoreside components (e.g., minor utilities improvements) of the Proposed Action would occur within a previously developed area. No new water supply wells would be constructed, and no changes to groundwater withdrawal are expected. Therefore, implementation of the Proposed Action would have a negligible impact on groundwater resources.

Wetlands

As documented in the USFWS National Wetland Inventory, there are no wetlands located within Base Honolulu (USFWS 2023). However, to the east, offshore areas within the harbor channel are designated estuarine and marine deepwater wetland (USFWS 2023). Implementation of the Proposed Action would require in-water construction within the channel including pile driving and the construction of decking within this estuarine and marine deepwater wetland. As such, implementation of the Proposed Action CWA Section 404 and Rivers and Harbors Act Section 10 permits. Compliance with all CWA Section 404 and Rivers and Harbors Act Section 10 permit requirements would ensure that impacts wetlands would be negligible.

Floodplains

The proposed demolition and construction activities at Base Honolulu would be implemented within delineated boundaries of the 100-year floodplain located

within the coastal flood zone containing additional hazards associated with storm waves (FEMA 2023). However, as with the existing mooring configurations and Base Honolulu, the proposed fixed pier extension would be designed to be capable of enduring such conditions. Implementation of the Proposed Action would not introduce any new obstructions that would impede or divert overland floodwater flow or alter the existing hydrologic regime at Base Honolulu such that downstream flood hazards would be increased or newly created. Therefore, the Proposed Action would result in negligible impacts to floodplain management.

4.8.2.2 Alternative 1: Precast Floating Dock

This alternative would involve the removal of the existing floating dock and the extension of the fixed pier at Berth G. However, this alternative would also involve the construction of a new precast floating dock on east side of the new fixed pier, occupying space off of Berth F. This floating dock would cover an additional area of up to 2,625 ft^2 and would be supported by eight new 24-inch diameter concrete or steel piles.

Impacts to water resources associated with this alternative would be similar to those described for the Proposed Action. However, short-term construction-related impacts would be slightly more adverse as a result of a larger disturbance area, the installation of more piles, and a slightly longer construction period. Nevertheless, with the implementation proposed BMPs, including the use of turbidity curtains and the implementation of a turbidity monitoring plan (refer to Section 4.2.3, *Special Procedures*), impacts to water resources resulting from construction activities would be minor.

4.8.2.3 Alternative 2: Lateral Pier Extension

This alternative would involve the same project elements described for Alternative 1; however, this alternative would also fill the triangular gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G pier extension. This lateral extension would cover an additional area of up to 1,335 ft^2 and would be supported by up to 19 new 24-inch concrete or steel piles.

Impacts to water resources associated with this alternative would be similar to those described for the Proposed Action and Alternative 1. However, short-term construction-related impacts would be slightly more adverse as a result of a larger disturbance area, the installation of more piles, and a slightly longer construction period. Nevertheless, with the implementation proposed BMPs, including the use of turbidity curtains and the implementation of a turbidity monitoring plan (refer to Section 4.2.3, *Special Procedures*), impacts to water resources resulting from construction activities would be minor.

4.8.2.4 No-Action Alternative

Under the No-Action Alternative, the USCG would not take action to provide necessary infrastructure to accommodate the return of the WLB to service at Base Honolulu. There would be no shoreside or in-water construction activities. Therefore, no short-term construction-related or long-term operational impacts to water resources would occur under this alternative

4.8.3 Special Procedures

Prior to construction, the USCG would be responsible for the development of a SWPPP and subject to requirements for a NPDES permit from the State of Hawaii Clean Water Branch. Conditions of the SWPPP would likely include measures such as:

- To the maximum extent practicable, project-related debris shall not be allowed to enter the water; any project-related debris that inadvertently enters the water shall be removed.

- Construction equipment shall be kept in good repair without leaks of hydraulic or lubricating fluids. If such leaks or drips occur, they shall be cleaned up immediately. Drip pans shall be utilized when vehicles are parked. Equipment maintenance and/or repair would be confined to one location. Runoff from this area shall be controlled to prevent contamination of soils and water. Fueling of land-based vehicles and equipment shall take place at least 50 feet (15 meters) away from the water (and away from

drains), preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.

- To the maximum extent possible, equipment and material shall be lowered to the bottom in a controlled manner. This can include the use of cranes, winches, or other equipment that affect positive control over the placement and rate of decent.

- Spill kits shall be kept on site at all times.

- The contractor shall be required to implement a SWPPP to control / eliminate stormwater runoff from entering the harbor.

- A containment system shall be placed under the deck during removal and installation.

- Concrete for decking shall be pumped into watertight forms.

- A contingency plan to control toxic materials shall be developed and followed to prevent toxic materials from entering or remaining in the marine environment during the project.

- Floating turbidity barriers shall be provided around limits of work during all phases of in-water work. Debris booms shall be positioned to enclose the entire work area and have a freeboard of 8 inches to 12 inches above the water surface and a draft of 16 inches to 36 inches below the water surface. The silt curtain shall be positioned to enclose the work area to minimize turbidity; extend below water to within 2 feet of mudline at the mean lower low water; and be suitably anchored to prevent movement.

Additionally, the USCG would be required to abide by all other project-specific BMPs established to prevent collisions or accidental spills and leaks (refer to Section 4.2.3, *Special Procedures*).

SECTION 5
CUMULATIVE IMPACTS

Cumulative impacts on environmental resources result from incremental impacts of the Proposed Action which, when combined with other past, present, and reasonably foreseeable future projects in an affected area, may collectively cause more substantial impacts. Cumulative impacts can result from minor but collectively substantial actions undertaken over a period of time by federal, state, or local or individual developers. In accordance with NEPA, a discussion of cumulative impacts resulting from projects which are proposed, under construction, recently completed, or anticipated to be implemented in the near future is required.

5.1 PROJECTS CONSIDERED

Analysis of cumulative projects in this EA has been limited to proposed or recently approved (i.e., within the last 5 years) projects within Honolulu Harbor. Based on a review of public documents made available by DLNR and HDOT-Harbors, two recently completed projects and three in-progress projects are located within the in the immediate vicinity of project area. Further, a USCG project, located immediately adjacent to the project area, is currently in the early planning stages. A navigational channel dredge project is also being contemplated by USACE and is in its feasibility study phase. Since the timing, breadth, and related details of this action are not yet determined by USACE, this project has been excluded from this cumulative effects analysis. A summary of each of these cumulative projects is provided in Table 5-1.

5.2 EVALUATION OF CUMULATIVE EFFECTS

The exact timing of the development for the projects described in Table 5-1 is not yet known; however, a number of these projects may be implemented concurrently with the Proposed Action.

Table 5-1. Cumulative Projects and Plans

Location Affected	Project	Important Project Dates	Implementation Status	Description
Honolulu Harbor	Pier 2 Cruise Ship Terminal Improvements	Organization and Functionality Improvements (September 2023)	Completed (September 2023)	The HDOT has revamped the area fronting the Honolulu Harbor, Pier 2 terminal to improve the organization, functionality and safety for ground transportation companies servicing the cruise ship passengers. The new layout was designed to reduce the congestion on Channel Street, improve the flow through the area and streamline the exit to Papu Street. Changes went into effect starting on Saturday September 9, 2023 (HDOT 2023a).
Honolulu Harbor	Honolulu Harbor Improvement Project	Utilities Improvements Project at Piers 24-28	Completed (2021)	On May 27, 2020, the HDOT announced that the Piers 24-28 Utilities improvements Project had been awarded to MIRA Image Construction, LLC. This project is part of the overall Harbors Modernization Plan and provides for needed infrastructure improvements to harbor users. The awarded contract amount is nearly $12.8 million for construction of a new sewer system, potable water, fire hydrants, communication, and electrical services. It also involves demolition and partial removal of the existing electrical system and the stub outs to each subdivided lot for the Harbor tenants to make their connection to bring utilities into their areas (HDOT 2020b).
Honolulu Harbor	Kapalama Container Terminal and Tenant Relocations (Phase 2)	Awarded contract of $350 million which features waterside construction at Piers 40-43 (Spring 2021)	In-Progress (Expected Complete in Summer 2025)	HDOT-Harbors, in partnership with the Hawaii Harbors User Group, has developed a system-wide harbor modernization plan (HDOT 2023b). The plan will implement harbor infrastructure improvements to address projected increases in ocean transportation of cargo and passengers through the 2030s. Plans for Honolulu Harbor call for waterside construction at Piers 40-43 in Honolulu Harbor that will add 18.5 acres of fast-land, including 1,860 linear feet of new berthing space for two container ships to dock simultaneously and up to six gantry cranes. The work also includes dredging along the waterfront and up to the federal channel and widening of the water basin between Piers 40 and 41, which will create important barge berthing space along Pier 41. This

Location Affected	Project	Important Project Dates	Implementation Status	Description
				Phase 2 project will address sea level rise by increasing the pier height that will match the phase 1 elevated backlands in construction (HDOT 2020a).
Honolulu Harbor	Pier 7 Improvements	Evaluation of Loss of Integrity (May 2023) Falls of Clyde Updates (June 2023)	In-Progress	HDOT is working to redevelop Pier 7 at Honolulu Harbor which has been vacant and inactive for the last 14 years, after Bishop Museum closed the Hawai‘i Maritime Center. One of the challenges to redevelopment has been the disposition of the Falls of Clyde—the historic vessel that was gifted to the museum—which remains moored at Pier 7. In order to facilitate the disposition of the vessel and prepare for the issuance of a new Request for Proposals for its removal from the harbor, HDOT has taken on the responsibility of completing the planning and entitlement processes. One of the steps in this process is the delisting of the vessel from the Hawaii Register of Historic Places. This step is not at all a reflection of the vessel's important history (HDOT 2023c).
Sand Island Wastewater Treatment Plant	Sand Island Wastewater Facility Upgrades	Phase I Construction: Notice to Proceed (January 2022) Phase II Construction Notice to Proceed (January 2030)	In Progress (Expected Complete in Winter 2035)	A 7-month-long sewer improvement project began on April 12, 2021 at the Sand Island State Recreation Area (SRA). Phase 2 of this project includes a new pump station, comfort station sewer lines, force main to the Sand Island Wastewater Treatment Plant and connecting sewer lines. The second phase of sewer improvements is targeted at deteriorating infrastructure. The contractor for this project is Peterson Bros., Inc. and the overall cost is $1,515, 616 (DLNR 2021; City and County of Honolulu 2022b).

Location Affected	Project	Important Project Dates	Implementation Status	Description
Honolulu Harbor	USCG Real Property Acquisition and Pier Construction	Construction Anticipated in 2025	In Environmental Review	The USCG is proposing the acquisition of an undeveloped 0.71-acre portion of a larger 1.28-acre waterside parcel located at Pier 53, abutting Base Honolulu to the east and south, and Matson operations to the west. The USCG is proposing construction of a fixed, pile-supported pier extending approximately 325 ft westward from Berth G to the Matson property boundary. This proposed project would allow mooring of additional vessels, reducing potential down time associated with mooring vessels in stacked configurations. Optionally, the USCG proposes to construct a precast concrete floating dock that would attach to the new fixed pier via a small gangway. The floating pier would include hardware and utility connections for a shore tie mound. No dredging, waterfront stabilization, or structural upgrades are proposed.
Honolulu Harbor	Honolulu Deep-Draft Harbor Modification	USACE Smart Planning Feasibility Study Process began in September 2022 and is expected to conclude in September 2025	In Conceptual Development	The existing Honolulu Harbor Federal project was constructed prior to 1981. Since completion, the world fleet has changed to include longer deeper drafting vessels with larger beams than were considered during prior studies. While port infrastructure is expanding to accommodate changes in maritime supply change demands, there are currently inefficient operations and limited maneuverability in the harbor. Inefficiencies are exacerbated by ongoing and projected changes in vessel dimensions. USACE is conducting a feasibility study to evaluate the advisability of modifications to the Honolulu Harbor to accommodate the current and future vessel fleet. Major outputs of the feasibility study will be a Final Integrated Feasibility Report and NEPA document.

5.2.1 Short-term Cumulative Impacts

Honolulu Harbor is the principal seaport for the Hawaiian Islands, and it is conceivable that the cumulative projects listed in Table 5-1 and other similar projects may occur within the harbor in the near future (e.g., within 5 to 10 years). These potential future construction and maintenance projects within the harbor may include the same stressors as the proposed Project such as underwater noise, water quality impacts (i.e., turbidity, potential for spills, etc.), and habitat modification. However, it is unlikely that a limited number of the 30 major berth facilities within the harbor would have projects of similar size and scope occurring at the same time as the proposed Project. Construction noise and turbidity impacts are generally short-term in duration, and cumulative effects are less likely to occur when projects are spaced in time. Potential long-term or permanent impacts include spills, habitat modification, and introduction of invasive species. Any non-federal projects would also need to be permitted through similar state and county agencies and adhere to the ESA and the MSA and analyze impacts on federally listed species, federally designated critical habitat, and EFH. Therefore, there would be no significant cumulative impacts related to construction noise, decreased water quality, and habitat modification.

While a majority of the projects included in Table 5-1 would involve in-water work, the projects would include standard BMPs to reduce impacts to biological and water resources, including visual scanning for the presence of marine mammals and implementation of a soft start process (to allow marine fauna that are sensitive to noise to depart without risk of harm). Additionally, no federally listed species would be impacted, and the affected coral species are typical of the vast majority of naturally occurring Hawaiian coral communities. Consequently, with the implementation of NMFS recommendations, the Proposed Action, when considered with the cumulative projects listed in Table 5-1 would not have a substantial contribution to cumulative impacts related to marine biological resources and water quality, and construction activities would be temporary and sporadic. Therefore, cumulative impacts would be minor.

Cumulative impacts related to air quality and hazards and hazardous materials would also be negligible since all individual projects would be required to implement standard BMPs to reduce air emissions and to reduce the potential for

exposure to hazardous contaminants below significance thresholds. Therefore, cumulative impacts to these resource areas would be minor as well.

5.2.2 Long-term Cumulative Impacts

Honolulu Harbor is highly developed, and the Kapalama Channel and Main Harbor Basin are regularly trafficked by large container ships. Further, Base Honolulu is an active port facility. Upon completion of construction, shoreside and in-water components of the Proposed Action would be visually consistent with the existing structures at Base Honolulu. The proposed mooring configurations would not be substantially different relative to the existing industrial character of the waterfront. Due to the low public visibility of Base Honolulu, the area is not considered a sensitive visual environment. Given the limited scale of the visual alteration and the low sensitivity of the area, long-term impacts to visual resources would be negligible.

SECTION 6
SUMMARY OF FINDINGS

A summary and comparison of environmental impacts anticipated to result from the implementation of the Proposed Action and its alternatives is provided in Table 6-1.

Table 6-1. Summary of Potential Impacts to Affected and Non-Affected Environmental Resources

Environmental Resource (with Subcategory as identified)		Potential Impacts (Classification and Duration)			
		Proposed Action: Berth G Extension and Removal of Existing Floating Dock	Alternative 1: Precast Floating Dock	Alternative 2: Lateral Pier Extension	No Project Alternative
Air Quality and Climate Change	Air Quality	Short-term minor	Short-term minor	Short-term minor	No Effect
	Climate Change	Long-term negligible	Long-term negligible	Long-term negligible	No Effect
Biological Resources	Terrestrial	Short-term negligible	Short-term negligible	Short-term negligible	No Effect
	Forage Fish and Invertebrates	Short-term minor	Short-term minor	Short-term minor	No Effect
	Essential Fish Habitat	Short-term minor	Short-term minor	Short-term minor	No Effect
	Federally Listed Species	Short-term minor	Short-term minor	Short-term minor	No Effect
	Modification to Federally Designated Critical Habitat	Short-term negligible	Short-term negligible	Short-term negligible	No Effect
Cultural Resources		Short-term negligible	Short-term negligible	Short-term negligible	Short-term negligible
Geological Resources		Short-term negligible. Long-term minor beneficial	Short-term negligible; Long-term minor beneficial	Short-term negligible; Long-term minor beneficial	No Effect
Hazardous Materials and Public Safety		Short-term negligible	Short-term negligible	Short-term negligible	No Effect

Environmental Resource (with Subcategory as identified)	Potential Impacts (Classification and Duration)			
	Proposed Action: Berth G Extension and Removal of Existing Floating Dock	Alternative 1: Precast Floating Dock	Alternative 2: Lateral Pier Extension	No Project Alternative
Safety	Short-term negligible; Long-term minor	Short-term negligible; Long-term minor	Short-term negligible	No Effect
Visual Resources	Short-term minor; Long-term negligible	Short-term minor; Long-term negligible	Short-term minor; Long-term negligible	No Effect
Water Resources	Short-term minor	Short-term minor	Short-term minor	No Effect

Notes:
Negligible = The action would result in no noticeable effects, beneficial or adverse, over existing conditions.
Minor = The action would result in a limited effect, beneficial or adverse, over existing conditions.

SECTION 7
SPECIAL PROCEDURES

Impact evaluations conducted during preparation of this EA have determined that no significant or otherwise substantial environmental impacts would result from implementation of the Proposed Action at USCG Base Honolulu. This determination is based on a thorough review and analysis of existing resource information and coordination with knowledgeable, responsible personnel from the USCG and relevant local, State, and Federal agencies (e.g., NMFS).

In addition to standard BMPs such as implementation of control measures for reducing fugitive dust emissions; conforming to all federal, state, and local requirements related to stormwater pollution prevention during construction activities; and safe removal any potentially hazardous materials prior to demolition activities, the following special procedures, which have been agree to by NMFS, would be required prior to and/or during implementation of the Proposed Action.

Biological Resources. The final project design would include the implementation of proposed BMPs agreed to by NMFS (see Appendix C) to minimize potential impacts on forage fish and invertebrates, essential fish habitat, federally listed species, and federally designated critical habitat:

1. Prior to mobilizing, the contractor shall ensure that all construction equipment, ballast, and vessel hulls do not pose a risk of introducing new invasive species and will not increase abundance of those invasive species present in Honolulu Harbor.

2. Where practicable, the USCG shall perform in-water work at low/slack tides, and when the sea is calm.

3. To the maximum extent practicable, the USCG shall lower equipment and material in a controlled manner.

4. Piles shall be constructed of concrete or steel. All concrete grout, cement, and sealant used shall be non-toxic and non-hazardous to aquatic organisms.

    a. Materials and equipment that enter the water shall be clean and free of pollutants.

5. Temporary in-water tethers, as well as mooring lines for vessels and marker buoys shall remain taut to the minimum length necessary and shall remain deployed only as long as needed.

6. When piloting vessels, vessel operators will alter course to remain at least 328 feet (100 meters) from whales, and at least 164 feet (50 meters) from other marine mammals and federally listed marine animals.

    a. Reduce vessel speed to 10 knots or less when piloting vessels in proximity of federally listed marine mammals, sharks, and rays; and 5 knots or less in areas of suspected sea turtle activity.

    b. If a marine mammal or turtle approaches the vessel, the vessel operator shall put the engine in neutral until the animal is at least 50 feet (15 meters) away.

7. To the maximum extent possible, project-related debris shall not enter the water. A temporary floating debris boom shall be installed around all work located below the high tide line.

8. The contractor shall be required to implement a SWPPP to control / eliminate stormwater runoff from entering the harbor.

9. Concrete for decking shall be pumped into watertight forms.

10. The contractor shall ensure that construction equipment is maintained in good condition without hydraulic fluid leaks.

    a. Daily equipment checks shall be conducted for leaks or drips.

b. It shall be mandatory to use drip pans when parking construction equipment

c. Fueling of land-based vehicles and equipment shall take place at least 50 feet (15 meters) away from the water (and away from drains), preferably over an impervious surface.

d. A contingency plan to control toxic materials shall be developed and followed to prevent toxic materials from entering or remaining in the marine environment during the project.

e. On site, spill kits with appropriate materials for cleaning and containing spills shall always be available.

11. During all in-water and over-water work that may increase turbidity (e.g., pile removal, cutting, installation), silt curtains shall completely enclose the work area to the maximum extent practicable to reduce the potential for sediments to leave the immediate vicinity.

    a. Silt curtains shall be monitored for damage, dislocation, or gaps on a daily basis, and immediately repaired where any such damage or issues are detected.

    b. The contractor shall conduct turbidity monitoring in accordance with CWA Section 401 standards. This monitor shall have project shut down authorization if turbidity levels exceed levels in permit standards.

12. Pile driving shall employ soft-start or ramp-up techniques (slow increase in hammering intensity), at the start of each workday or following any break of more than 30 minutes.

13. Pile driving shall occur during normal business hours (i.e., 8 am to 5 pm) and when no sea turtles or marine mammals have been observed in the areas of impact for these species.

14. A PSO competent in the identification of marine mammals and sea turtles shall ensure that the permanent threshold shift (PTS) and behavioral isopleth zones are clear of those species 30 minutes prior to underwater noise activities, following any break of more than 30 minutes, and for 30 minutes following the daily conclusion of pile driving.

    a. The observer shall monitor the area of noise impact continuously throughout each day during in-water activities and shall have the authority to halt operations if a marine mammal or sea turtle enters its area of impact.

    b. The PSO shall ensure they have visibility of the entire area of noise impact.

    c. For some activities, this may entail more than one PSO to ensure suitable coverage.

    d. For non-pile related activities, work shall be postponed or halted when a marine mammal or sea turtle is within 164 feet (50 meters) of the non-pile related work, and shall only begin / resume after the animals has voluntarily departed the area.

        i. If a marine mammal or sea turtle is noticed within 164 feet (50 meters) after work has already begun, then work may continue only if, in the best judgement of the PSO, the activity would not adversely affect (i.e., disturb or harm) the animal.

    e. For pile removal / installation, operations shall halt when any sea turtles or marine mammals are within their area of noise impact. This area differs for marine mammals and sea turtles. Operations may not resume until that species has voluntarily departed its area of impact.

        i. For all marine mammals including the Hawaiian monk seal, this distance is up to 3.92 miles (6,309.6 meters) (limited to the area of Honolulu Harbor).

ii. For sea turtles, this distance is up to 328 feet (100 meters).

15. The USCG shall submit a report to NMFS within 90 calendar days upon the completion of the project including the following information:

    a. Observer logs. All interactions with marine mammals and sea turtles must be documented.

    b. Monitoring logs shall be completed daily. If no federally listed species are observed, the observer shall record "0" in the daily report.

    c. The monitoring logs shall be submitted in a digital format to NMFS, with the following information:

        i. Total hours and dates of monitoring including time of arrival and departure and time of pile driving commences and finishes

        ii. Identification of which federally listed species were observed and in what location and circumstances, including date, time, numbers of individuals of species observed, the outcome of the species observance relative to the authorized project, and any factors which may have affected visibility,

        iii. If applicable, observed federally listed species behaviors and movement types relative to the project activity at time of observation, and

        iv. Any work stoppage, and length of stoppage time.

In addition to the proposed BMPs agreed to by NMFS, the USCG is working with NMFS and DLNR-DAR to identify appropriate coral translocation areas to minimize loss, and potential projects or activities that would offset any unavoidable loss of corals. These offset measures are intended to benefit coral habitat and/or water quality in the vicinity of the project area.

Coral Translocation

DLNR-DAR is the primary agency for coordinating reef management efforts in the Main Hawaiian Islands (DLNR-DAR 2023). If the implementation of Alternative 3 is determined to create over-water coverage on individual corals, the USCG would work with NMFS and DLNR-DAR to develop a Coral Translocation Plan. This plan would include specifics on numbers of individual corals that would need to be translocated, potential recipient locations, translocation method, installation methods, and a monitoring plan that would ensure the translocations are successful. Generally larger, non-encrusting corals would be translocated. Smaller corals and encrusting corals would not be as successful to translocate.

Since Harbor Porites are present at Base Honolulu, only sites within Honolulu Harbor would be appropriate recipient sites for these corals to minimize any further spread of this non-native species. Corals that would be translocated would be of sufficient size and species that are known to successfully translocate.

Potential areas for translocation include Pier 5/6 on the north side of the Main Harbor, Berth A at Base Honolulu, and areas on Berth F where coral coverage permits. Other potential sites may be suitable and would be included in the planning. Corals would be translocated in approximately the same depth of water of their origin, or slightly deeper. Recipient sites would be surveyed prior to selection to determine suitability and approved by NMFS and DLNR-DAR. The timing of coral translocation would not coincide with any sensitive spawning windows.

Offset Measures

For corals that are not possible to translocate due to size or type (i.e., encrusting corals), the USCG is considering several options to offset these unavoidable losses. These options include the following, which are described in more detail in Appendix C:

- Submerged Debris Cleanup on Base
- Water Quality Enhancement Projects on Base
- Anuenue Fisheries Research Center Water Intake Pump

- Anuenue Fisheries Research Center Water Intake Pump

These offsets would benefit corals and/or water quality directly or indirectly. The USCG is currently scheduling a re-survey of the area at Berth G Lateral Extension to determine the numbers, sizes, and species of corals that may be impacted by the proposed Project. The USCG would try to minimize the area of corals that would be covered by reducing the project footprint with the finalized design. Using survey results, the USCG would estimate the amount of unavoidable loss the proposed Project would incur and would work with NMFS and DLNR-DAR to determine the appropriate offsets that would be required. The following are example projects that may be appropriate offsets for unavoidable loss. Additional projects may be identified as the project progresses, and the USCG would discuss and future options with NMFS and DLNR-DAR.

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SECTION 9
LIST OF PREPARERS

This report was prepared for, and under the direction of, the U.S. Coast Guard (USCG) by WSP USA, Inc. (WSP). Members of our professional staff as well as our subconsultant team, Marine Resource Consultants, Inc. (MRCI), are listed below:

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Quality Assurance / Quality Control (QA / QC)

Marissa Murphy, QA / QC Manager
M.A. Environmental Science and Policy

Technical Analysts

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Masters in Environmental Management

Matt Sauter, Underwater Acoustics Specialist
M.S. Paleontology

Kaitlyn Halpin, Lead Environmental Analyst
B.S. Environmental Studies

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B.S. Biology and Society

Production

Janice Depew, Formatting and Production Manager
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Marine Resource Consultants, Inc.

Dr. Steve Dollar, Marine Biologist
PhD Oceanography

Appendix A

List of Agencies Contacted

Appendix A
List of Agencies Contacted

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National Marine Fisheries Service
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Endangered Species Biologist
NMFS/PIRO/Protected Resources Division
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Branch Chief, Essential Fish Habitat
NOAA PIRO Habitat Conservation Division
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JB Martin, Director (Acting)
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Natural Resources Conservation Service, Pacific Islands Area Office
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Honolulu, HI 96850
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John Hoffmann, Center Director
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U.S. Geological Survey
Pacific Islands Water Science Center
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Honolulu, HI 96818
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jphoffma@usgs.gov

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U.S. Environmental Protection Agency
Region IX, Pacific Islands Office
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Martha Guzman,
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Pacific Islands Field Office
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Michelle Bogardus,
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U.S. Fish and Wildlife Service
Pacific Islands Field Office
300 Ala Moana Blvd. Room 3-122
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Honolulu, HI 96850
(808) 792-9473
michelle_bogardus@fws.gov

Ms. Leah Fisher
Acting Chief, Regulatory Office
U.S. Army Corps of Engineers
Honolulu District
Fort Shafter, HI 96858
(808) 835-4300
CEPOH-RO@usace.army.mil

Appendix B

Scoping Letter and Responses

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: 757-852-3404
Fax: 757-852-3495

19 December 2022

U.S. Environmental Protection Agency Region IX, Pacific Islands Office
Dean Higuchi
300 Ala Moana Blvd., Room 5124
Honolulu, HI 96850

Dear Interested Party:

The U.S. Coast Guard (USCG) is proposing the extension of an existing berth at Base Honolulu to accommodate the return of a second 225-foot Seagoing Buoy Tenders (WLB) along with a new floating dock to accommodate an existing Fast Response Cutter (FRC).

In 2015 the USCG completed an Environmental Assessment (EA) and Biological Assessment (BA) for the proposed homeporting of two new National Security Cutters (NSCs) and associated infrastructure improvements at Base Honolulu. The EA and BA analyzed the potential impacts of proposed shore-side facility development and mooring configurations for the arrival of the NSCs, while also integrating other ongoing vessel assignment actions including decommissioning of Island-Class Patrol Boats (WPBs), stationing of FRCs, and the return of one or two previously assigned WLBs from their mid-cycle assessment. The 2015 EA identified three alternatives that addressed shore-side facility and berthing requirements. The Preferred Alternative (Alternative A), which was ultimately selected by the USCG, focused on NSC mooring at Berths A/Band Don the east side of Base Honolulu. The Preferred Alternative also considered three FRCs at Berths B and C, a WLB at Berth E, and two WPBs at Berths G and its attached floating dock, respectively. In 2016 the USCG prepared a Supplemental EA to more specifically address the in-water work associated with accommodating the NSCs at Berths A/B and D.

In 2022, the USCG identified the need for an extension to Berth G to create permanent berthing for the second WLB, along with a new floating dock to accommodate an existing FRC. These in-water modifications closely matched an alternative that was previously analyzed in the 2015 EA; however, this alternative was neither ultimately selected for execution in the 2015 EA nor identified as preferred during previous agency consultations. Due to the age of the 2015 EA and its baseline environmental information, the USCG has decided to prepare a new EA and BA. While these documents may incorporate elements of the 2015 EA and the 2016 Supplemental EA, this updated EA and BA will focus on Berths E-G of Base Honolulu and the execution of the current proposal.

The USCG proposes to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 feet eastward from Berth G. This extension would allow for mooring of the second WLB, including fenders, mooring hardware, and services. The USCG would also demolish and dispose of the existing floating dock currently sited at Berth G, to include removal of foundations and piles, but excluding the floating gangway which may be reused if the construction options below are executed.

The USCG is considering an option to construct a new precast concrete floating dock that would attach to the east side of the new fixed Pier G via a small gangway, occupying space off the Berth F area. This floating dock would support an existing 154-foot FRC.

The USCG is also considering an option to construct a small lateral pier extension to fill an angled gap which would arise between the Berth F bulkhead and the new Berth G pier extension. This lateral extension would be a pier-supported bridge section that would allow safer personnel, equipment, and vehicle transit to and from the Berth G area.

No dredging, waterfront stabilization, or structural upgrades to any other facilities are proposed.

Pursuant to the National Environmental Policy Act (NEPA), the Coast Guard intends to prepare an EA to evaluate the potential effects on the environment of proposed in-water modifications as well as the No Action Alternative. The Draft EA is expected to be released for public review in Spring 2023. The EA will include the purpose and need for the in-water modifications project; a detailed description of alternatives under consideration; the affected environment; environmental consequences of implementation of the alternatives; and cumulative effects of the project. The EA will also incorporate results from a site-specific benthic habitat survey which will include the project area and its vicinity.

The USCG respectfully requests that your agency or organization review the proposed project and provide comments and any available information that your agency or organization may have on resources in the project area. Currently, we are seeking input to help identify regulatory concerns, approvals, and any other relevant information. Please provide any comments by 5:00 pm on January 20, 2023 to Mr. Michael West by e-mail at Mike.West@uscg.mil.

Sincerely,

ROBERT M. HUNTER, P.E.
Commander, U.S. Coast Guard
Executive Officer

Enclosures: Figure 1 - USCG Base Honolulu
Figure 2 - Proposed WLB Mooring and Structural Pier Upgrades

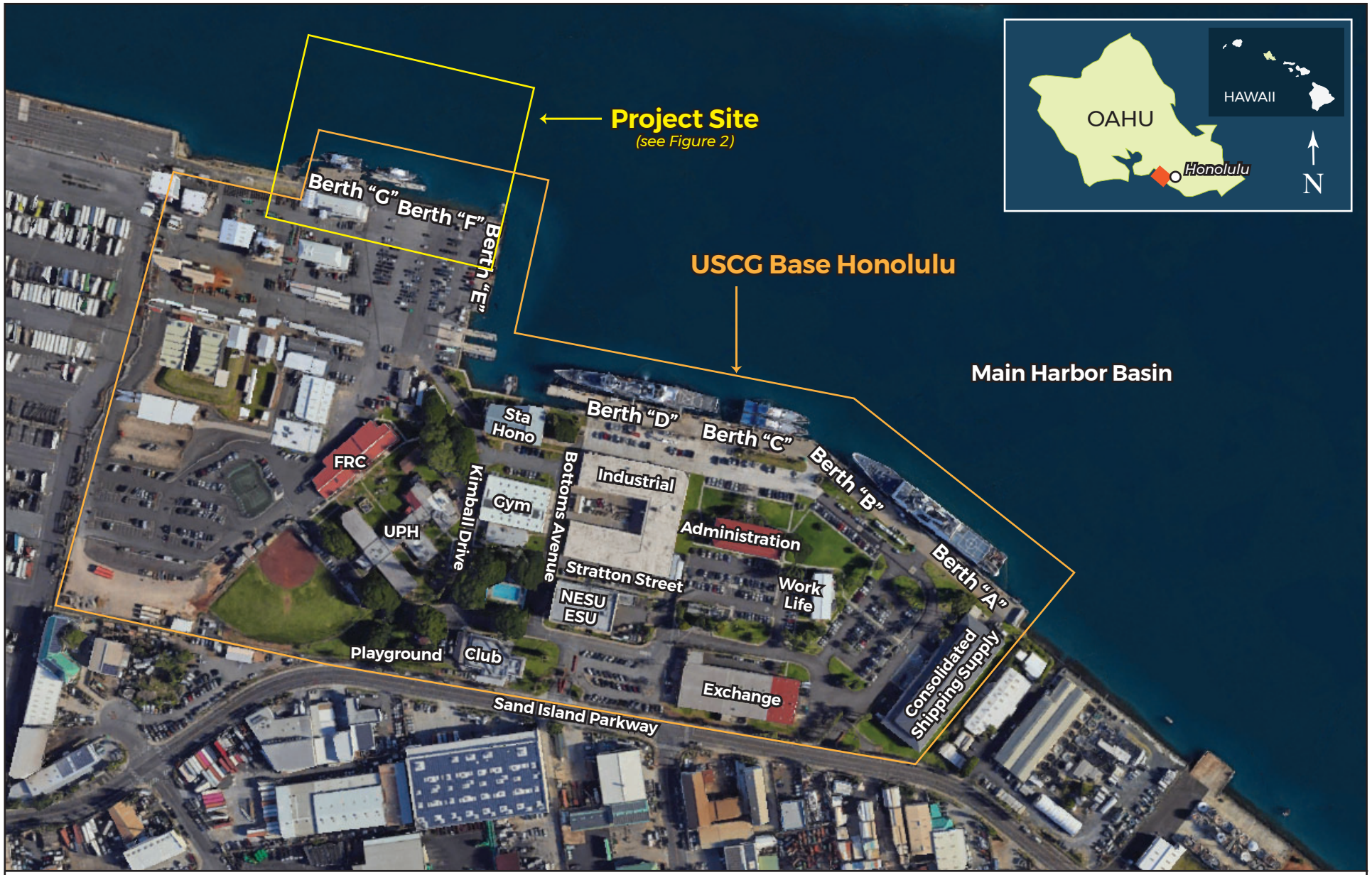

Figure 1: USCG Base Honolulu

Figure 2: Proposed WLB Mooring and Structural Pier Upgrades

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov/dpp

RICK BLANGIARDI
MAYOR

DAWN TAKEUCHI APUNA
DIRECTOR DESIGNATE

JIRO A. SUMADA
DEPUTY DIRECTOR

January 13, 2023

2022/ELOG-2631(ST)

SENT VIA EMAIL

Michael.West@uscp.mil

Dear Mr. West:

SUBJECT: New Environmental Assessment (EA) and Biological Assessment (BA)
U.S. Coast Guard Base Honolulu
400 Sand Island Parkway
Tax Map Key 1-5-041: 042

This responds to your request, received on December 21, 2022, for comments on the forthcoming preparation of a new EA and BA for the proposed home porting of two new National Security Cutters and associated improvements.

The shore-side facilities are located in the F-1, Military and Federal Preservation District, and is in the Special Management Area (SMA), established by Chapter 25, Revised Ordinances of Honolulu. The proposed pier extension and moorings are located in waters of Honolulu Harbor; submerged lands are zoned P-1 Restricted Preservation District and are in the State Land Use Conservation District, which is under State jurisdiction. Both Federally-owned lands within the F-1 District and P-1 District submerged lands in the State Conservation District are not subject to the zoning and SMA regulations administered by the City and County of Honolulu.

Should you have any questions, please contact Steve Tagawa, of our staff, at (808) 768-8024.

Very truly yours,

for Dawn Takeuchi Apuna
Director Designate

cc: Commander Robert M. Hunter

Meisinger, Nick

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Friday, February 17, 2023 1:29 PM
To: West, Michael A CIV USCG FDCC (USA)
Cc: Goldschmidt, Aaron P; Meisinger, Nick; Slay, Hudson
Subject: RE: Berth Extension at Base Honolulu

Follow Up Flag: Flag for follow up
Flag Status: Flagged

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Hi Mike – Thanks again for the time extension. We are fine just reviewing the DEA when it is available for public review.

The only suggestion we have now is to coordinate early with the U.S. Army Corps of Engineers to determine if the project requires an individual (as opposed to a Nationwide) Section 404 permit under the CWA. Section 404 regulates the discharge of dredged or fill material into waters of the U.S., including wetlands and other special aquatic sites (i.e. those sites identified in 40 CRF 230, Subpart E which include mud flats, vegetated shallows, coral reefs, among others). Since the project may require placement of pilings in waters of the United States (which could constitute a discharge of fill material), it is important to consult early so this determination can be made. If an individual 404 permit is required, EPA will need to review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA ("404(b)(1) Guidelines"). Also, if an individual 404 permit is required, we recommend the DEA discuss alternatives to avoid those discharges and include information on impacts to waters of the U.S. so that the proposed NEPA alternatives can be evaluated in the context of the 404(b)(1) Guidelines and its alternatives analysis. This way relevant comments can receive responses and effect appropriate modifications in the Final EA (assuming one is prepared).

Thanks and please don't hesitate to contact us with any questions. I'm copying Hudson Slay of our Water Division, Wetlands and Oceans Section, on this message; please direct any 404-related questions to him.

We look forward to reviewing the Draft EA.

Sincerely –

~
Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

From: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Sent: Tuesday, February 7, 2023 5:48 AM
To: Vitulano, Karen <Vitulano.Karen@epa.gov>

Cc: aaron.goldschmidt <aaron.goldschmidt@woodplc.com>; Nick Meisinger <nick.meisinger@woodplc.com>
Subject: RE: Berth Extension at Base Honolulu

Thank you Karen – and if you need a few more days, that's fine too. This is a relatively small waterfront improvement project that continues from a previous project at the same location about 5 years ago.

VR,
Mike

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Monday, February 6, 2023 8:31 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Subject: [Non-DoD Source] RE: Berth Extension at Base Honolulu

Hi Mike – Thanks for the info – yeah sending to our highest official means it takes a while to get down to us.

I'm focused on the Phase II CEQ Regs but will try to take a look to see if we need to comment by next week. Thanks for the informal extension – I can be in touch and let you know if we might need more time.

~

Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

From: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Sent: Thursday, February 2, 2023 11:32 AM
To: Vitulano, Karen <Vitulano.Karen@epa.gov>
Subject: Re: Berth Extension at Base Honolulu

Hello Karen - it appears that our electronic submittal was sent to Martha Guzman at Region 9 in San Francisco, and I'm genuinely unsure what happened.

The USCG would be glad to extend the response period on scoping for this action to a more appropriate date. Would February 17, 2023 be acceptable?

VR,
Mike

Michael West

Environmental Protection Specialist

U.S. Coast Guard

Facilities Design & Construction Center

5505 Robin Hood Rd. Ste K

Norfolk, VA 23513

757-852-3425 (o)

301-728-1792 (c)

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Thursday, February 2, 2023 12:51 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Subject: [Non-DoD Source] Berth Extension at Base Honolulu

Hello Mike – Thank you for sending the Interested Party letter about this project. Unfortunately since it was sent hard copy via snail mail, I have just received it and see it is past the January 20th commenting deadline.

Can you please send notices electronically in the future? You can send them to me at vitulano.karen@epa.gov. This not only speeds up our receipt but also helps us comply with the federal transition to electronic records.

Can we get some more time in case we have comments?

~

Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

Meisinger, Nick

From: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Sent: Thursday, January 19, 2023 4:53 AM
To: Goldschmidt, Aaron P; Meisinger, Nick
Subject: Fw: [URL Verdict: Neutral][Non-DoD Source] Technical assistance from NMFS PIRO Habitat Conservation Division for the Expanded Berths at Base Honolulu

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Attached is initial feedback from NOAA Fisheries.

VR,
Mike

From: Sean Hanser - NOAA Federal <sean.hanser@noaa.gov>
Sent: Wednesday, January 18, 2023 4:24 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Cc: Malia Chow - NOAA Federal <malia.chow@noaa.gov>; David Delaney - NOAA Federal <david.delaney@noaa.gov>; Ron Dean - NOAA Federal <ron.dean@noaa.gov>
Subject: [URL Verdict: Neutral][Non-DoD Source] Technical assistance from NMFS PIRO Habitat Conservation Division for the Expanded Berths at Base Honolulu

Aloha Mr. West,

The National Marine Fisheries Service, Pacific Islands Regional Office (PIRO) received your request for comments and technical assistance on the Environmental Assessment (EA) and Biological Assessment (BA) for the Extension of Berth G and a New Floating Dock at Base Honolulu on December 27, 2022. Our technical assistance is provided below and is intended to help you comply with the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSA; Section 305(b)(2) as described by 50 CFR 600.920), which will be required as part of the U.S. Army Corps of Engineers, Honolulu District, Regulatory Branch's (hereafter, USACE) permitting process. This technical assistance does not fulfill any federal responsibilities and does not constitute an EFH consultation. In addition to being the federal regulatory agency responsible for implementing the MSA, PIRO oversees consultations for compliance with the Endangered Species Act (ESA) and other statutory mandates. Compliance with the EFH provisions of the MSA can also be achieved through pursuance to the Fish and Wildlife Coordination Act (FWCA, 16 U.S.C. 661-666c). For all questions related to consultations with us in the future, please contact us through the email address EFHESAconsult@noaa.gov.

Section 305(b) of the MSA requires federal action agencies to consult with NMFS when proposed federal actions may adversely affect EFH designated for federally managed fish stocks (i.e., management unit species or MUS). The Pacific Islands Region has sensitive and hard-to-replace coral reefs and seagrass resources, often referred to as habitat forming EFH. Given the sensitivity of these habitat forming resources and the complexity in mitigating and offsetting adverse effects that may result in the unavoidable loss of the ecosystem services that corals and seagrass provide, consultation should occur for projects that affect the water column and benthic resources, including invertebrate communities that are established on manmade structures. NMFS recommends direct coordination with PIRO for this project.

EFH Consultations

The EFH consultation process entails the federal action agency contacting NMFS and providing an Essential Fish Habitat Analysis (EFHA), which contains key mandatory information: a description of the proposed action, a determination from the federal agency as to how the action will affect EFH, an assessment of those adverse effects, and proposed ways to mitigate for the adverse effects, if applicable. An adverse effect to EFH is anything that reduces the quality and/or quality of EFH. It may include direct, indirect, and site specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of an action. NMFS will then review the EFHA and may provide conservation recommendations to avoid, minimize, offset for or otherwise mitigate expected adverse effects. Early coordination between PIRO and the action proponent prior to submission of the EFHA, usually ensures consultations that meet project timelines, are less burdensome for action proponents, and adhere to legal mandates.

EFH includes all types of aquatic habitat where fish spawn, breed, feed, or grow to maturity. The marine water column from the surface to a depth of 1,000 m from shoreline to the outer boundary of the EEZ (200 nautical miles), and the seafloor from the shoreline out to a depth of 700 m around each of the Hawaiian Islands, have been designated as EFH. These parameters make the water column and bottom of the Pacific Ocean out to 15 miles offshore of Oahu and its surrounding waters and submerged lands (≤700 m) designated EFH that support various life stages for the MUS identified under the Western Pacific Fishery Management Council's Pelagic and Hawai'i Archipelago Fishery Ecosystem Plans. The MUS and life stages found in these waters include: eggs, larvae, juveniles, and adults of Bottomfish MUS; eggs, larvae, juveniles, and adults of Crustacean MUS; and eggs, larvae, juveniles, and adults of Pelagic MUS. Specific types of habitat considered as EFH include coral reef, patch reefs, hard substrate, artificial substrate, seagrass beds, soft substrate, mangrove, lagoon, estuarine, surge zone, deep-slope terraces and pelagic/open ocean. Even in developed urban harbors in Hawaii, some life stages of MUS may be present.

EFHA Content

Information and analysis of the marine resources present in and adjacent to the project footprint and the potential effects from the proposed action on those resources should be in the EA and an EFHA. The information between the two documents should be consistent. The EFHA may incorporate information in the EA by reference, but descriptions of the marine resources and analysis of the effects of project should be detailed enough for the EFHA to sufficiently quantify potential effects and losses to marine resources and to be able to plan measures that will avoid and minimize as many effects as possible and offset any damage or losses that cannot be avoided. Referenced documents must be provided to NMFS with the EFHA. Federal agencies may incorporate the EFHA into documents prepared for other purposes, such as the BA, National Environmental Policy Act (NEPA) documents, or public notices. If an EFHA is contained in another document, it must still include all of the mandatory contents as per the EFH guidelines. It must also be clearly identified in the table of contents and text of the document as an EFHA.

The proposed action may adversely affect water column and benthic EFH through a series of stressors that should be analyzed for the consultation. The stressors may include but not be limited to turbidity from suspended sediment during demolition and construction, introduction of chemical contaminants through both construction activities and liberating compounds resident in the substrate in the environment, invasive species, physical damage to MUS life stages and coral reef ecosystem component species, shading photosynthetic biota during construction, and changes to benthic and manmade structures. The latter effects would include physical damage to the benthos, including habitat conversion, and sedimentation.

Before you submit the EFH consultation, we recommend that you find existing sources of information on the marine resources in and adjacent to the project footprint. Specific information about the marine resources in your project area will allow you to accurately assess the potential effects of your action and determine the right ways to avoid or reduce impacts from the proposed action. We recommend that you conduct preliminary, quantitative benthic marine survey assessments of the entire project footprint area within the littoral cell—hard and soft bottom, manmade structure footprints, areas between and offshore of the structures, and where sediment models predict deposition before an EFH consultation is initiated. The level of complexity of surveys should be scaled proportionally with the extent of habitat forming EFH resources (e.g., corals and submerged aquatic vegetation) that may suffer adverse effects (i.e., direct,

indirect, and cumulative) from the proposed action. Survey sampling should be considered to accommodate analyses that require greater replication and higher statistical power in order to avoid the need to obtain higher resolution data.

Hard-bottom and areas with habitat forming EFH should be prioritized over soft bottom substrate, though it will be important to characterize the latter. If your project will disturb the sediment or require removing sediment you will want to model or use some other method to estimate the movement of suspended sediment. If there is a high probability that sediment deposition will occur over sensitive and hard-to-replace hard-bottom habitat, corals, and submerged aquatic vegetation, these areas should be prioritized survey areas both before and after construction. Completing the modelling effort and including it in the Draft EIS and EFHA would help reduce uncertainty and better inform EFH conservation recommendations and any offset determinations. Testing the sediment for contamination is also advised.

Mitigation

Methods for reducing or eliminating the effects of the proposed action should be discussed in the EFHA. The content will include listing avoidance measures and best management practices (BMPs) in a comprehensive manner and determine how effective the measures will be at reducing the effects of the proposed action. When you have determined if there will be effects that cannot be mitigated and could result in unavoidable losses of EFH, offering offsets for the losses will give your agency greater control over the mitigation actions associated with the project. Offset projects for EFH can also be used to meet your obligations for compensatory mitigation under Section 404 of the Clean Water Act.

Monitoring

Post-action monitoring plans would reduce uncertainty during potential EFH offset determinations. Completing the survey work and including it in the Draft EIS and EFHA would help reduce uncertainty and better inform EFH conservation recommendations and any potential offset determinations for unavoidable loss. NMFS is ready and willing to provide assistance to further refine and clarify the types and complexity of survey information that will be needed.

Robust water quality monitoring (e.g., turbidity, sedimentation rates, nutrients, dissolved oxygen, etc.) would be helpful to assess conditions before (i.e., baseline), during, and after proposed activities. These activities should be informed by the sediment modeling and daily tide and current velocity predictions (https://www.pacioos.hawaii.edu/voyager/) to select sampling locations. Special attention and consideration should be placed on collecting turbidity and sedimentation rate information at areas where there are habitat forming EFH resources, including corals and submerged aquatic vegetation. NMFS would defer to the requirements of the Environmental Protection Agency delegated through the state of Hawai'i, Department of Health, Clean Water Branch's 401 Water Quality Certification, Applicable Monitoring and Assessment Plans. Including water quality monitoring planning in the EA and EFHA would help reduce uncertainty and better inform EFH conservation recommendations and any offset determinations.

Summary

NMFS PIRO greatly appreciates your request for technical assistance and the opportunity to provide comments. In summary, we expect that the proposed facility improvement project may have adverse effects on EFH. Depending on the results from the marine resource survey assessment, sediment modeling, sediment testing, and proposed water quality monitoring, the preferred alternative may result in unavoidable loss of EFH, which would require offset considerations. The NEPA document and prospective EFH consultation would be benefitted by including marine resources information, careful evaluation of potential stressor effects to EFH, marine resource plans, and quantification of the expected unavoidable loss of EFH resources. We look forward to early coordination for the EFH consultation.

Sincerely,

Sean

--

Sean F. Hanser, PhD.
Resource Management Specialist, Habitat Conservation Division
Pacific Islands Regional Office
National Marine Fisheries Service | U.S. Department of Commerce
(808) 725-5091
www.fisheries.noaa.gov

Meisinger, Nick

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Friday, February 17, 2023 1:29 PM
To: West, Michael A CIV USCG FDCC (USA)
Cc: Goldschmidt, Aaron P; Meisinger, Nick; Slay, Hudson
Subject: RE: Berth Extension at Base Honolulu

Follow Up Flag: Flag for follow up
Flag Status: Flagged

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Hi Mike – Thanks again for the time extension. We are fine just reviewing the DEA when it is available for public review.

The only suggestion we have now is to coordinate early with the U.S. Army Corps of Engineers to determine if the project requires an individual (as opposed to a Nationwide) Section 404 permit under the CWA. Section 404 regulates the discharge of dredged or fill material into waters of the U.S., including wetlands and other special aquatic sites (i.e. those sites identified in 40 CRF 230, Subpart E which include mud flats, vegetated shallows, coral reefs, among others). Since the project may require placement of pilings in waters of the United States (which could constitute a discharge of fill material), it is important to consult early so this determination can be made. If an individual 404 permit is required, EPA will need to review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA ("404(b)(1) Guidelines"). Also, if an individual 404 permit is required, we recommend the DEA discuss alternatives to avoid those discharges and include information on impacts to waters of the U.S. so that the proposed NEPA alternatives can be evaluated in the context of the 404(b)(1) Guidelines and its alternatives analysis. This way relevant comments can receive responses and effect appropriate modifications in the Final EA (assuming one is prepared).

Thanks and please don't hesitate to contact us with any questions. I'm copying Hudson Slay of our Water Division, Wetlands and Oceans Section, on this message; please direct any 404-related questions to him.

We look forward to reviewing the Draft EA.

Sincerely –

~
Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

From: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Sent: Tuesday, February 7, 2023 5:48 AM
To: Vitulano, Karen <Vitulano.Karen@epa.gov>

Cc: aaron.goldschmidt <aaron.goldschmidt@woodplc.com>; Nick Meisinger <nick.meisinger@woodplc.com>
Subject: RE: Berth Extension at Base Honolulu

Thank you Karen – and if you need a few more days, that's fine too. This is a relatively small waterfront improvement project that continues from a previous project at the same location about 5 years ago.

VR,
Mike

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Monday, February 6, 2023 8:31 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Subject: [Non-DoD Source] RE: Berth Extension at Base Honolulu

Hi Mike – Thanks for the info – yeah sending to our highest official means it takes a while to get down to us.

I'm focused on the Phase II CEQ Regs but will try to take a look to see if we need to comment by next week. Thanks for the informal extension – I can be in touch and let you know if we might need more time.

~

Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

From: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Sent: Thursday, February 2, 2023 11:32 AM
To: Vitulano, Karen <Vitulano.Karen@epa.gov>
Subject: Re: Berth Extension at Base Honolulu

Hello Karen - it appears that our electronic submittal was sent to Martha Guzman at Region 9 in San Francisco, and I'm genuinely unsure what happened.

The USCG would be glad to extend the response period on scoping for this action to a more appropriate date. Would February 17, 2023 be acceptable?

VR,
Mike

Michael West

Environmental Protection Specialist

U.S. Coast Guard

Facilities Design & Construction Center

5505 Robin Hood Rd. Ste K

Norfolk, VA 23513

757-852-3425 (o)

301-728-1792 (c)

From: Vitulano, Karen <Vitulano.Karen@epa.gov>
Sent: Thursday, February 2, 2023 12:51 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Subject: [Non-DoD Source] Berth Extension at Base Honolulu

Hello Mike – Thank you for sending the Interested Party letter about this project. Unfortunately since it was sent hard copy via snail mail, I have just received it and see it is past the January 20th commenting deadline.

Can you please send notices electronically in the future? You can send them to me at vitulano.karen@epa.gov. This not only speeds up our receipt but also helps us comply with the federal transition to electronic records.

Can we get some more time in case we have comments?

~

Ms. Karen Vitulano
U.S. Environmental Protection Agency, Region 9
Environmental Review Branch, Tribal, Intergovernmental and Policy Division
San Francisco, California | Ancestral land of the Ohlone people
No snail mail please – we are transitioning to a fully electronic environment
PHONE 415-947-4178

"Do unto those downstream as you would have those upstream do unto you." -- *Wendell Berry*

Meisinger, Nick

To: Goldschmidt, Aaron P
Subject: RE: [URL Verdict: Neutral][Non-DoD Source] Fwd: (USCG) Berth Extension at Base Honolulu EA_BA Notice

From: Ron Dean - NOAA Federal <ron.dean@noaa.gov>
Sent: Thursday, January 5, 2023 6:53 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Cc: Kate Taylor - NOAA Federal <kate.taylor@noaa.gov>; _NMFS PIR ESHESA <EFHESAconsult@noaa.gov>
Subject: [URL Verdict: Neutral][Non-DoD Source] Fwd: (USCG) Berth Extension at Base Honolulu EA_BA Notice

Hi Mr. West:

This email confirms receipt of your attached letter sent via FedEx dated December 19, 2022.

For the Endangered Species Act, the proposed activities may affect the below species. In addition, section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect essential fish habitat (EFH). If necessary, it is your responsibility to request EFH

Please let us know if we may answer any further questions.

Thanks,

-Ron

Species/ common name	ESA Status	Effective Listing Date/ FR Notice	Critical Habitat	Recovery Plan
Chelonia mydas Central North Pacific Green Sea Turtle	Endangered	05/06/2016 81 FR 20057		
Eretmochelys imbricata Hawksbill Sea Turtle	Endangered	06/03/1970 35 FR 8491		5/22/98 63 FR 28359
Neomonachus schauinslandi Hawaiian Monk Seal	Endangered	11/23/1976 41 FR 51612	9/21/2015 (revised) 80 FR 50925	8/22/07 72 FR 46966

Date: Thu, Jan 5, 2023 at 1:29 PM
Subject: (USCG) Berth Extension at Base Honolulu EA_BA Notice
To: _NMFS PIR ESHESA <EFHESAconsult@noaa.gov>
Cc: Kate Taylor - NOAA Federal <kate.taylor@noaa.gov>

Hi:

FYI. I received the attached via FedEx today.

-Ron
--

Ron Dean

Chief, Intergovernmental Coordination Branch

Protected Resources Division

NOAA Fisheries | U.S. Department of Commerce

1845 Wasp Blvd., Bldg 176, Room 2884

Honolulu, HI 96818
Office: (808) 725-5140

www.fisheries.noaa.gov

--

Ron Dean

Chief, Intergovernmental Coordination Branch

Protected Resources Division

NOAA Fisheries | U.S. Department of Commerce

1845 Wasp Blvd., Bldg 176, Room 2884

Honolulu, HI 96818
Office: (808) 725-5140

www.fisheries.noaa.gov

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

RICK BLANGIARDI
MAYOR

HAKU MILLES, P.E.
DIRECTOR DESIGNATE

BRYAN GALLAGHER, P.E.
ACTING DEPUTY DIRECTOR

January 10, 2023

SENT VIA EMAIL

Mr. Michael West
Mike.West@uscg.mil

Dear Mr. West:

Subject: Proposal of extension of an existing berth at Base Honolulu to accommodate the return of a second 225-foot Seagoing Buoy Tenders (WLB) along with a new floating dock to accommodate an existing Fast Response Cutter (FRC).

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any further questions, please contact me at (808) 768-8480.

Sincerely,

for Haku Milles, P.E., LEED AP
Director Designate

HM:krn (894294)

Meisinger, Nick

Subject: RE: HONO: FW: PIA Response: Per Attachment

From: Hong, Kathryn (CTR) - FPAC-NRCS, HONOLULU, HI <Kathryn.Hong@usda.gov>
Sent: Wednesday, January 11, 2023 3:06 PM
To: West, Michael A CIV USCG FDCC (USA) <Mike.West@uscg.mil>
Cc: Martin, JB - NRCS, Temple, TX <jb.martin@usda.gov>; Constantinides, Michael - NRCS, Honolulu, HI <michael.constantinides@usda.gov>
Subject: [Non-DoD Source] PIA Response: Per Attachment
Importance: High

~This message is being sent on behalf of J.B. Martin, Acting Director ~

Aloha e Mr. West,

Thank you for the attached notification and the opportunity to provide input, however, at this time, the USDA NRCS PIA State Office has no comments or concerns.

Mahalo,

Kathryn Hong
Administrative Specialist (Contractor)
Natural Resources Conservation Service
Pacific Islands Area
Phone: (808) 600-2935
Email: kathryn.hong@usda.gov

Office Hours: 8AM – 4:30PM

Mission: *We deliver conservation solutions so agricultural producers can protect natural resources and feed a growing world.*

Vision: *A world of clean and abundant water, healthy soils, resilient landscapes, and thriving agricultural communities through voluntary conservation.*

Appendix C

Agency Consultation Materials

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Pacific Islands Regional Office
1845 Wasp Blvd., Bldg 176
Honolulu, Hawaii 96818
(808) 725-5000 · Fax: (808) 725-5215

January 12, 2023

Ingrid Larrson
United States Coast Guard
Facilities Design & Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431

RE: Request for Informal ESA Consultation and Conference on the proposed Structural Pier Upgrades Project at U.S. Coast Guard Base Honolulu, HI. (I-PI-23-2240-DG, PIRO-2023-02749).

Dear Ms. Larsson:

On October 31, 2023, NOAA's National Marine Fisheries Service (NMFS) received your written request for informal consultation on the U.S. Coast Guard's (USCG) proposed action to extend an existing berth and install a new floating dock at USCG Base Honolulu. The proposed action may affect the endangered or threatened species and/or proposed critical habitat under our jurisdiction, as identified below in Table 1. On November 1, 2023, we sought clarification on the USCG's effects determination for the North Pacific green sea turtle critical habitat and the use of bubble curtains during pile-driving activities. On November 15, we received all the necessary information to evaluate the proposed action and initiated a section 7 consultation.

We prepared this response to your request pursuant to section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §1531 *et seq*.), implementing regulations at 50 CFR 402, and agency guidance for the preparation of letters of concurrence. This letter also underwent pre-dissemination review using standards for utility, integrity, and objectivity in accordance with applicable guidelines issued under the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). A complete record of this consultation is on file at the Pacific Island Regional Office, Honolulu, Hawaii.

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the 2019 regulations that were revised or added to 50 CFR part 402 in 2019 ("2019 Regulations," see 84 FR 44976, August 27, 2019) without making a finding on the merits. On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court's July 5 order. On November 14, 2022, the Northern District of California issued an order granting the government's request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order two days later on November 16, 2022. As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. On June 22, 2023, we proposed clarifications to the language in the regulations. For purposes of this consultation and in an abundance of caution, we considered whether the substantive analysis and conclusions articulated in the letter of concurrence would

be any different under the pre-2019 regulations, the 2019 regulation, or the 2023 proposed regulations. We have determined that our analysis and conclusions would not be any different.

Under section 7(a)(4) of the ESA, each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. While consultations are required when the proposed action may affect listed species, a conference is required only when the proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. However, Federal action agencies may request a conference on any proposed action that may affect proposed species or proposed critical habitat (USFWS & NMFS 1998).

Proposed Action

Under the Clean Water Act Section 404 and the Rivers and Harbors Act Section 10, administered by the U.S. Army Corps of Engineers (USACE), the USCG proposes to upgrade the existing waterfront facilities at the USCG Base Honolulu to support both Seagoing Buoy Tenders (WLBs) and National Security Cutters simultaneously. Additionally, the USCG is considering the construction of a floating pier that could berth one of the three existing Fast Response Cutters.

The proposed action will remove twenty-two 20 to 24-inch (in.) concrete piles and remove a floating dock that includes 1,452 square feet (ft^2) of overwater coverage. The action will install 84 piles (one 48 in. and eighty-three 20 to 24 in. piles) and 7,093 ft^2 of total overwater coverage, which includes new overwater coverage of 5,641 ft^2. Pier construction, removal of old pilings, and installation of new piles will occur from the existing pier, adjacent upland areas, and support barges. Pile removal will occur by vibratory removal or pile cutting with an underwater pile clipper. The USCG assumes the demolished pilings and other wood debris are chemically treated and require appropriate disposal.

Based on previous installation methods conducted in Honolulu Harbor, piles will be installed directly into the bedrock for the first 6 feet (ft.) to minimize noise disturbance, requiring approximately 50 minutes of down-the-hole (DTH) drilling. DTH drilling utilizes typical rotary bits for drilling and percussion-type drill devices that break up the rock, allowing for the simultaneous removal of the fragments (Figure 1). Beyond 6 ft., impact pile driving will drive the remainder of the pile into position. An estimated 28 strikes are required to install each 24 in. pile. A maximum of one minute of impact hammering is required to proof each pile. Four piles will be installed each day for a maximum of 22 days of pile installation. A bubble curtain will be used to attenuate underwater sound created by the impact pile driver. The USCG will use hand and power tools to install cross-bracings and bents.

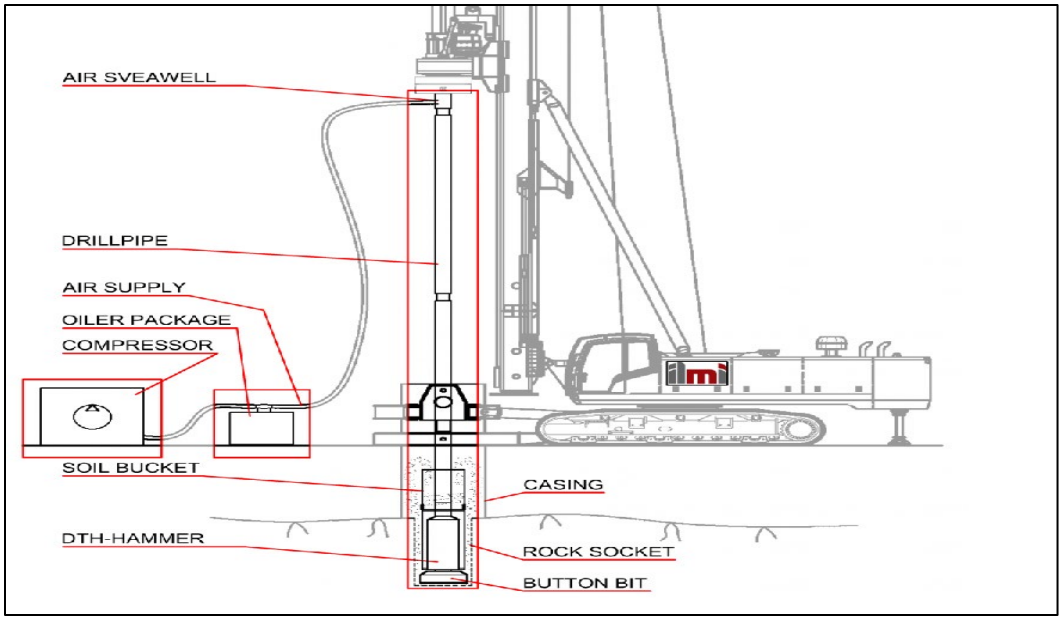

Figure 1: DTH drilling configuration.

The proposed project consists of three components:

- Berth G expansion,
- Berth G lateral extension, and
- Berth F floating dock.

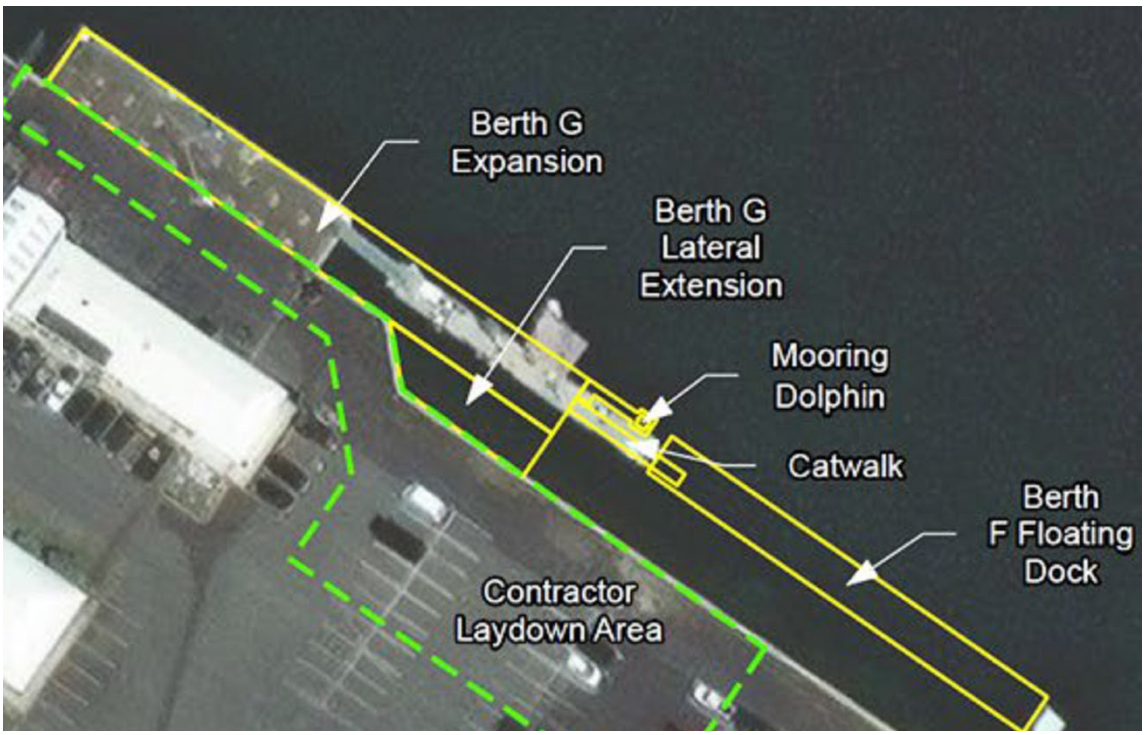

Figure 2: The three components of the action.

Berth G expansion
The USCG proposes to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 ft. eastward from Berth G. This would allow for the adequate mooring of the WLB, including fenders, mooring hardware, and upgraded electrical services.

Materials required for support piles have not been determined but may include either steel or concrete (precast or auger-cast) piles. The USCG will replace the existing 24 in. diameter concrete fender piles at Berth G with 16 new 24 in. diameter concrete or steel fender piles. The expansion of Berth G by 110 ft. to the east would include an area of 2,750 ft^2 of overwater coverage and require 40 new 24 in. concrete or steel piles for support. In addition, the expansion will include the installation of a mooring dolphin supported by a 48 in. diameter pile and a 123 ft. wide catwalk (Figure 2).

Berth G lateral extension
The proposed extension of Berth G would create a trapezoidal gap in the in-water wharf infrastructure between the Berth F bulkhead and the new Berth G Expansion (Figure 2). Therefore, the USCG is likely construct a small lateral pier extension to fill this gap. This Berth G lateral extension will involve the construction of a bulkhead and pile-supported decking that would allow personnel, equipment, and vehicle transit to and from Berth G. Up to 19 new 24 in. concrete and steel piles will support the 1,335 ft^2 trapezoidal area of this component.

Berth F floating dock
The USCG would also demolish and dispose of the existing 1,452 ft^2 floating dock, including removal of six 24 in. octagonal concrete piles. The USCG would construct a new precast concrete floating dock that would attach to the east side of the new fixed Berth G via the existing mooring dolphin and a small 260 ft^2 gangway (Figure 2). The floating dock would also attach to the existing mooring dolphin at the east end of Berth F. The 175 ft. long new floating dock, supported by eight new 24 in. diameter concrete or steel piles, will cover an area up to 2,625 ft^2.

<u>USCG's Best Management Practices</u>
In order to avoid or minimize effects on the Central North Pacific green, hawksbill sea turtles, and the Hawaiian monk seal, the USCG will implement the following BMPs to ensure that impacts to ESA-listed species and proposed Central North Pacific Green Sea Turtle critical habitat are minimal and would not adversely modify the habitat.

These include:

1. Prior to mobilizing, the contractor will ensure that all construction equipment, ballast, and vessel hulls do not pose a risk of introducing new invasive species and will not increase abundance of those invasive species present in Honolulu Harbor.
2. Where practicable, the USCG will perform in-water work at low/slack tides, and when the sea is calm.
3. To the maximum extent practicable, the USCG will lower equipment and material in a controlled manner.
4. Piles will be constructed of concrete or steel. All concrete grout, cement, and sealant used will be non-toxic and non-hazardous to aquatic organisms.
    a. Materials and equipment that enter the water will be clean and free of pollutants.

5. Temporary in-water tethers, as well as mooring lines for vessels and marker buoys will remain taut to the minimum length necessary and will remain deployed only as long as needed.
6. When piloting vessels, vessel operators will alter course to remain at least 100 meters (m) from whales, and at least 50 m from other marine mammals and federally listed marine animals.
    a. Reduce vessel speed to 10 knots or less when piloting vessels in proximity of federally listed marine mammals, sharks, and rays; and 5 knots or less in areas of suspected sea turtle activity.
    b. If a marine mammal or turtle approaches the vessel, the vessel operator will put the engine in neutral until the animal is at least 15 m away.
7. To the maximum extent possible, project-related debris will not enter the water. A temporary floating debris boom would be installed around all work located below the high tide line.
8. The contractor will be required to implement a Storm Water Pollution Prevention Plan to control/eliminate stormwater runoff from entering the harbor.
9. Concrete for decking would be pumped into watertight forms.
10. Ensure that construction equipment is maintained in good condition without hydraulic fluid leaks.
    a. Conduct daily equipment checks for leaks or drips occur.
    b. It is mandatory to use drip pans when parking construction equipment
    c. Fueling of land-based vehicles and equipment will take place at least 50 ft. away from the water (and away from drains), preferably over an impervious surface.
    d. A contingency plan to control toxic materials will be developed and followed to prevent toxic materials from entering or remaining in the marine environment during the project.
    e. On site, spill kits with appropriate materials for cleaning and containing spills would always be available.
11. During all in-water and over-water work that may increase turbidity (e.g., pile removal, cutting, installation), silt curtains will completely enclose the work area to the maximum extent practicable to reduce the potential for sediments to leave the immediate vicinity.
    a. Silt curtains will be monitored for damage, dislocation, or gaps on a daily basis, and immediately repaired where any such damage or issues are detected.
    b. The contractor will conduct turbidity monitoring in accordance with CWA 401 standards. This monitor will have project shut down authorization if turbidity levels exceed levels in permit standards.
12. Pile driving will employ soft-start or ramp-up techniques (slow increase in hammering intensity), at the start of each workday or following any break of more than 30 minutes.
13. Pile driving will occur during normal business hours (i.e., 8 am to 5 pm) and when no sea turtles or marine mammals have been observed in the areas of impact for these species.
14. A Protected Species Observer (PSO) competent in the identification of marine mammals and sea turtles will ensure that the permanent threshold shift (PTS) and behavioral isopleth zones are clear of those species 30 minutes prior to underwater noise activities,

following any break of more than 30 minutes, and for 30 minutes following the daily conclusion of pile driving.

a. The observer will monitor the area of noise impact continuously throughout each day during in-water activities and will have the authority to halt operations if a marine mammal or sea turtle enters its area of impact.
b. The PSO will ensure they have visibility of the entire area of noise impact.
c. For some activities, this may entail more than one PSO to ensure suitable coverage.
d. For non-pile related activities, work will be postponed or halted when a marine mammal or sea turtle is within 50 m of the non-pile related work, and will only begin/resume after the animals has voluntarily departed the area.
    i. If a marine mammal or sea turtle is noticed within 50 m after work has already begun, then work may continue only if, in the best judgement of the PSO, the activity would not adversely affect (i.e., disturb or harm) the animal.
e. For pile removal/installation, operations will halt when any sea turtles or marine mammals are within their area of noise impact. This area differs for marine mammals and sea turtles. Operations may not resume until that species has voluntarily departed its area of impact.
    i. For all marine mammals including the Hawaiian monk seal, this distance is up to 6309.6 meters (limited to the area of Honolulu Harbor).
    ii. For sea turtles, this distance is up to 100 m.

15. The USCG would submit a report to NMFS within 90 calendar days upon the completion of the project including the following information:
    a. Observer logs. All interactions with marine mammals and sea turtles must be documented.
    b. Monitoring logs will be completed daily. If no federally listed species are observed, the observer would record "0" in the daily report.
    c. The monitoring logs will be submitted in a digital format to NMFS, with the following information:
        i. Total hours and dates of monitoring including time of arrival and departure and time of pile driving commences and finishes
        ii. Identification of which ESA species were observed and in what location and circumstances, including date, time, numbers of individuals of species observed, the outcome of the species observance relative to the authorized project, and any factors which may have affected visibility,
        iii. If applicable, observed federally listed species behaviors and movement types relative to the project activity at time of observation, and
        iv. Any work stoppage, and length of stoppage time.

The in-water work will require six months to complete, and the entire project will last approximately 12 months. Depending on project design and contractor award, the USCG anticipates construction to begin in 2024.

Action Area

The action area is defined by regulation as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR §402.02). The action area for the proposed activities encompasses the full extent of the action's modifications to land, water, and air. For this action, the full extent of direct and indirect effects is potential exposure to elevated noise during pile-driving activities.

Appreciable noise from DTH drilling will extend 6309.6 m from the source. However, local shoreline topography, breakwaters, and ground sediments will interrupt, reduce, and absorb maximum noise transmission. Honolulu Harbor consists of an entrance channel (Fort Armstrong Channel) 4,000 ft. long, 500 feet wide, and 45 ft. deep; a main harbor basin 3,300 ft. long, 1,520 ft. wide and 40 ft. deep; a west harbor basin 3,400 ft. long, 1,000 ft. wide and 40 ft. deep; a connecting channel 400 ft. wide and 40 ft. deep; and a 400 ft. wide, 23 ft. deep channel (Kalihi Channel). Considering the local shoreline topography that will interrupt and reduce maximum noise transmission, the extent of the noise transmission is limited to the Kapalama Channel and some areas of the Kapalama Basin and the Main Basin, and the Action Area equals a total of 8,965,478 ft^2 or 0.32 square miles including upland areas that may be used for staging areas (Figure 3).

Figure 3: Proposed Action Area.

Listed Species in the Action Area

We are reasonably certain the ESA-listed species and designated critical habitat under our jurisdiction listed in Table 1 occur in the action area, and may be affected by the proposed activities. Detailed information about the biology, habitat, and conservation status of the animals listed in Table 1 is available in their status reviews, recovery plans, federal register notices, and other sources at https://www.fisheries.noaa.gov/species-directory/threatened-endangered.

Table 1. Common name, scientific name, ESA status, effective listing date, critical habitat designation, and recovery plans, with Federal Register reference for ESA-listed species considered in this consultation.

Species/ common name	**ESA Status**	**Effective Listing Date/ FR Notice**	**Critical Habitat**	**Recovery Plan**
Central North Pacific Green Sea Turtle	Threatened	05/06/2016 81 FR 20057	Proposed 07/19/2023 88 FR 46572	
Eretmochelys imbricata Hawksbill Sea Turtle	Endangered	06/03/1970 35 FR 8491		5/22/98 63 FR 28359
Neomonachus schauinslandi Hawaiian Monk Seal	Endangered	11/23/1976 41 FR 51612	9/21/2015 (revised) 80 FR 50925	8/22/07 72 FR 46966

Critical Habitat in the Action Area

Central North Pacific Green Sea Turtle. In areas of the MHI, proposed critical habitat for green sea turtles includes the marine environment from the mean high water line to 20 m depth. The specific areas within the proposed designation, with their physical and biological features are:

1. From the mean high water line to 20 m depth, sufficiently dark and unobstructed nearshore waters adjacent to nesting beaches proposed as critical habitat by USFWS, to allow for the transit, mating, and internesting of reproductive individuals, and the transit of post-hatchlings.
2. From the mean high water line to 20 m depth, underwater refugia (*e.g.,* caves, reefs, protective outcroppings, submarine cliffs, and "potholes") and food resources (*i.e.,* seagrass, marine algae, and/or marine invertebrates) of sufficient condition, distribution, diversity, abundance, and density necessary to support survival, development, growth, and/or reproduction.

Detailed information on proposed green sea turtle critical habitat is available at: https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-green-sea-turtles.

Analysis of Effects

Under the ESA (50 CFR 402.02), "effects of the action" are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

The applicable standard to find that a proposed action is "not likely to adversely affect" listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial (USFWS & NMFS 1998). Discountable effects are those extremely unlikely to occur. Insignificant effects relate to the size of the impact and should never reach the scale where take[1] occurs. Beneficial effects are contemporaneous positive effects without any adverse effects.

Despite the USCG's use of all BMPs, we identified the following stressors remain, and have the potential to affect listed marine species and/or critical habitat in the action area:

- Vessel collisions,
- Direct physical impact,
- Disturbance from human activity,
- Exposure to increased turbidity,
- Exposure to elevated noise,
- Exposure to waste and discharge, and
- Loss of habitat.

Vessel collisions

The proposed action will expose the species listed in Table 1 to the risk of vessel collisions when the vessels transit within the action area. The action will require up to three vessels (a barge, a tug, and a skiff) to support construction. The support vessels are expected to remain at the construction site for most of the construction period but may make daily movements to carry out construction activities. Vessel collisions can cause sharp and blunt force injuries, and lethal effects can occur immediately upon impact or several hours, days, or weeks after the incident (Campbell-Malone et al. 2008).

Sea turtle strikes: NMFS (2008) estimated 37.5 vessel strikes of green sea turtles per year from an estimated 577,872 trips per year from vessels of all sizes in Hawai'i. Recently, we estimated as many as 200 green sea turtle strikes annually in Hawai'i (Kelly 2020). The probability of a green sea turtle strike from any vessel trip is extremely low, with a 0.035% yearly average. Hawksbill sea turtles likely have a much lower rate of strikes when compared to green sea turtles. The rate is likely lower due to the hawksbill sea turtle's preference for deeper offshore waters. There were four documented vessel strikes of hawksbill sea turtles between 1984 and 2020 in Hawai'i (Kelly 2020). Sea turtles are unlikely to occur in the action area because the habitat is unsuitable. During the 2013 USFWS survey of Honolulu Harbor, they observed one adult male green sea turtle foraging on seagrass in the entrance channel of Honolulu Harbor, and no hawksbill sea turtles were reported (USFWS 2014).

Sea turtles are most vulnerable to small vessels (<15 m) traveling at fast rates (>10 kts), and thus vessel operators must be responsible for watching out for and avoiding sea turtles (Kelly 2020). Increased vessel speed decreases the ability of sea turtles to recognize a moving vessel in time to dive and escape, as well as the vessel operator's ability to recognize the turtle in time to avoid it. However, vessels used in the proposed action will operate under a speed restriction of 5 knots in areas of known turtle activity or if a turtle is observed. Furthermore, the vessels in the proposed

[1] Under the ESA, the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (16 U.S.C. §1532). We further define "harass" as to create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (Wieting 2016).

action will use BMPs to reduce the probability of a vessel collision by requiring vessel operators to maintain a high vigilance for protected species while in transit to avoid vessel collisions and altering the course to remain at least 50 m from marine mammals and sea turtles. Therefore, given the BMPs described above and the low presence of turtles in the action area, the probability of a sea turtle strike is likely less than the overall rate calculated above. Thus, we are reasonably certain the probability of exposure of sea turtles to vessel strikes from this action is extremely unlikely, and therefore discountable.

Hawaiian monk seals: Hawaiian monk seals are highly agile, and vessel strikes with monk seals are infrequent (Carretta et al. 2021). According to PIFSC's database, there have been only four verified vessel strikes of Hawaiian monk seals between 1981 and 2016 (John Henderson, pers. comm., PIFSC 5/4/17). Other wounds and blunt force trauma have been documented but wounds, especially those that have healed, are difficult to distinguish between vessel strikes and other blunt force trauma such as intentional killing. Considering the BMPs included with this action, the rarity of documented vessel strikes, and the low abundance and widely scattered nature of monk seals in the area; we are reasonably certain the likelihood of exposure of any monk seal to vessel strikes from this proposed action is extremely unlikely, and therefore discountable.

Direct physical impact

The action may affect Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals through direct physical impacts within Honolulu Harbor during pile-driving and other construction activities. Sea turtles and monk seals are highly motile in the marine environment and will likely avoid work areas due to human presence and noise.

We expect sea turtles and Hawaiian monk seals may enter the action area on an infrequent basis based on previous sighting records (Wurth 2009, Mercer 2017a, 2017b, Mercer pers. comms. 2018, and NMFS unpublished data 2018). Additionally, PSOs will monitor the area of noise impact continuously throughout each day during in-water activities, and they will have the authority to halt operations if a monk seal or sea turtle enters the area of noise impact. Considering the implemented BMPs, including turbidity curtains that will act as a physical barrier between species and activities, we are reasonably certain that the probability of exposure to direct impacts for Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals is extremely unlikely and therefore discountable.

Disturbance from human activity

Disturbances from human activities, including land-based equipment operation, the presence of construction workers, and vessel transit within the action area may overlap with foraging and resting locations for Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals. ESA-listed species are likely habituated to moderate human activity (Martin and Jones 2017). Despite this habituation, increased human activity may disturb the behaviors of Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals.

Construction equipment and the presence of construction workers may cause a visual disturbance to ESA-listed species. Land-based equipment operation will occur from shore and produce in-air noise. Elevated in-air noise is unlikely to generate underwater noise above ambient levels because the sound does not efficiently transfer from the air into the water column. Anticipated responses to visual disturbances by ESA-listed species may include a startled reaction resulting in active avoidance or fleeing from the area (Meadows 2004). However, the most frequent

response to this type of interaction is a low-energy behavioral avoidance, and ESA-listed species could move from the harbor to deeper water. This low-energy behavioral avoidance could temporarily displace feeding and resting activities.

Honolulu Harbor has a moderate level of vessel activity, and the action will add three new vessels transiting within the harbor. Disturbances from vessel movement may cause a behavioral response in monk seals and sea turtles. Typical behavioral responses may include temporarily masking communications and acoustic environmental cues, alteration of ongoing behaviors, and avoidance. Hawaiian monk seals and sea turtles are large and agile and capable of swimming away safely from any disturbance that would harm them. While these disturbances may result in a behavioral response, the effects are temporary as the vessel passes and are limited spatially and temporally.

The USCG will monitor the area before in-water work and shut down if they observe ESA-listed species within the established distances for all activities. Halting work when turtles or monk seals are within these ranges will minimize exposure and the severity of their response. Additionally, the USCG has established BMPs that vessel operators will alter course to remain at least 50 yds. away from ESA-listed species. Considering the BMPs, we are reasonably certain the effects on Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals from human disturbance will not reach the scale where harm or harassment occurs and are therefore insignificant.

Exposure to increased turbidity

The removal of existing piles by vibratory extraction, pile clipping, and installation of their replacements using DTH drilling and impact pile driving may result in localized re-suspension of sediment from the piles and may expose Central North Pacific green turtles, hawksbill sea turtles, and Hawaiian monk seals to elevated turbidity.

Ambient turbidity levels in Honolulu Harbor are high and constitute water quality impairment. Turbid conditions result from sediment-laden stream discharge and frequent passage of large vessels that suspend bottom sediment (USACE 2015). Using available information from a project in the Hudson River, we expect pile-driving activities to produce total suspended sediment concentrations of approximately 5.0 to 10.0 mg/L above background levels within approximately 300 ft. of the pile-driving (FHWA 2012). The small resulting sediment plume will settle out of the water column within a few hours.

Turbidity in waters can reduce sea turtles' and monk seals' ability to detect predators (Oliver et al. 2000), and sedimentation on coral reefs and seagrass can negatively influence turtle food sources (NMFS and USFWS 1998). Sea turtles and monk seals are highly motile and may temporarily avoid localized turbidity plumes in favor of clear water, reducing their exposure risk. These minor movements will be too small to be meaningfully measured or detected. Considering Honolulu Harbor is already a marginal foraging habitat, we would not expect any elevated turbidity to create long-term effects on these species by altering the trophic structure within the action area (Weiffen et al. 2006; Chivers et al. 2013).

The deployment of a full-length, turbidity curtain during pile driving, pile clipping, and pile removal will minimize the spread of turbidity and prevent Central North Pacific green turtles, hawksbill sea turtles, and Hawaiian monk seals from entering turbidity plumes. Additional BMPs for all activities will minimize the exposure of ESA-listed species to turbidity, including postponing all work when ESA-listed marine species are within 50 m of the activity and

conducting turbidity monitoring in accordance with CWA 401 standards. Given the temporary, localized nature of turbidity caused by the project activities and the implemented BMPs, we are reasonably certain the effects from exposure to increased turbidity for Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals will not reach the scale where harm or harassment occur, and are therefore insignificant.

Exposure to elevated noise

Activities including impact pile driving, vibratory pile extraction, pile clipping, DTH drilling, and vessel operations may produce in-water sound levels capable of injury or adverse behavioral modifications for Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals. The effects of exposure to sound vary with the frequency, intensity, duration, and hearing characteristics of the affected animals. Baseline noise levels in harbor areas similar to Honolulu Harbor have a broadband width of 95 to 120 dB at 1m root mean square (re 1µPa-1m RMS) (USACE 2015), and ambient noise levels in the harbor are a sum of the sounds associated with vessels, construction activities, and natural environmental sounds (Richardson et al. 1995; USCG 2017).

Sounds associated with this action can affect animals exposed to them in two ways: loss expressed in PTS and behavioral responses or changes. O'Hara and Wilcox (1990) found that loggerhead turtles exhibited avoidance behavior at estimated sound levels up to 175 dB RMS re 1µPa at 1 m in a shallow canal. McCauley et al. (2000) reported a noticeable increase in swimming behavior for green and loggerhead turtles at received levels of 166 dB RMS, and at 175 dB RMS, green and loggerhead turtles displayed increased swimming speed and increasingly erratic behavior (McCauley et al. 2000). Our publicly available NMFS multi-species, acoustic calculator (https://www.fisheries.noaa.gov/southeast/consultations/section-7-consultation-guidance) uses a 160 dB re 1µPa threshold for behavioral impacts on sea turtles, and a 120 dB re 1µPa threshold for the onset of behavioral disturbance for all marine mammals (NMFS 2018).

Disturbance from vessel noise may cause a behavioral response in monk seals and sea turtles due to increased noise and movement. Vessels associated with the action will generate noise that could range from 170 – 182 dB re 1µPa at 1 m (Veer et al. 2016). Vessel noise attenuates below the behavioral response threshold for Hawaiian monk seals at 0.6 m and at 0.0 m for sea turtles. The USCG has established BMPs that vessel operators will alter course to remain at least 50 m from ESA-listed species. While this noise may result in a behavioral response, the effect will be temporary as the vessel passes. Any masking of communication or acoustic environmental cues, alteration of ongoing behaviors, or avoidance is limited spatially and temporally. While ESA-listed species may hear some noise as a result of this action, given the BMPs we are reasonably certain the effects from vessel noise will not reach the scale where harm or harassment occur and are therefore insignificant.

The USCG will drive multiple pile types (steel pipe and concrete pipe) of different sizes (48 in. and 24 in.), using vibratory pile driving and impact pile driving, and DTH drilling methods. Vibratory pile driving produces a continuous sound usually concentrated between 20-40 Hz, while impact pile driving produces a loud impulse sound usually concentrated below 500 Hz (DOSITS 2022; NAVFAC 2022). The first 6 ft. of substrate will require approximately 50 minutes of DTH drilling, which utilizes percussion-type drill devices that rapidly break up the rock and allow for simultaneous removal of the fragments. We have summarized the USCG's

calculated isopleths for elevated underwater sound from activities associated with the action for the turtles and monk seal exposure in Table 2.

Table 2: PTS and behavioral isopleth distances for sea turtles and Hawaiian monk seals.

Pile Removal/Installation Activity	Projected Distances to Thresholds (m)			
	PTS isopleth		Behavioral isopleth	
	Sea turtles	Monk seal	Sea turtles	Monk seal
Vibratory Extraction: 24 in. concrete piles	0.0	0.4	0.1	251.2
DTH Pile Driving: 24 in. concrete piles (vibratory)	0.7	10.8	1.4	6,309.6
Pile Clipper: 24 in. concrete piles	0.1	1.8	0.6	2,590.2
Diamond Wire Saw	0.2	2.5	0.6	2,712.3
Impact Drive: 24 in. concrete piles	23.6	316.3	100	1,000
Impact Drive: 24 in. steel piles	23.6	316.3	100	1,000
Impact Drive: 48 in. concrete piles	0.5	7.4	15.8	158.5
Impact Drive: 48 in. steel piles	3.4	45.9	100	1,000
DTH Pile Driving: 24 in. concrete piles	11.3	151.6	1.4	13.6

Impact pile driving of 24 in. steel or concrete piles will produce the largest isopleths for PTS onset for sea turtles and monk seals, and behavioral disturbances for sea turtles. It will take 286 strikes per pile and up to four piles per day, resulting in the unattenuated cumulative sound exposure level (SEL_{cum}) of 215 dB re 1µPa, which produces an isopleth of 23.6 m for PTS onset for sea turtles, a 316.3 m isopleth for PTS onset for Hawaiian monk seals, and an isopleth of 100 m for behavioral disturbances for sea turtles. The first 6 ft. of DTH pile driving (vibratory) of 24 in. steel or concrete piles will produce the largest isopleths for behavioral disturbances to Hawaiian monk seals. DTH drilling of up to four piles per day will take 50 minutes per pile, resulting in an unattenuated SEL_{cum} of 215 dB re 1µPa, which produces an isopleth of 6309.6 m for behavioral disturbances for Hawaiian monk seals.

Regardless of the specific value, we assume that a direct line of sight provides a clear path for sound to travel. However, Honolulu Harbor contains shallow, nearshore waters with irregular bottoms and high levels of sand and silt, which is a poor environment for acoustic propagation. It contains structures, piers, and topography that will interrupt and reduce maximum noise

transmission, and significant attenuation losses will occur. Sound typically dissipates more rapidly under these conditions than in open waters. Therefore, considering the local shoreline topography will interrupt and reduce maximum noise transmission, the extent of noise considered in this action is limited to the Kapalama Channel and some areas of Kapalama Basin and the Main Basin (Figure 3).

BMPs establish that a bubble curtain will enclose pile-driving activities and further mitigate sound dispersal. It will act as a barrier for the sound to pass through and reduce the radiation of sound from the pile into the water by producing low-density bubbles close to the pile (Caltrans 2020). Additionally, pile driving will employ soft-start or ramp-up techniques at the start of each day or following any break of more than 30 minutes and will occur during business hours. A PSO will monitor the area of noise impacts for green sea turtles, hawksbill sea turtles, and Hawaiian monk seals. If any ESA-listed species enters the area of noise impacts from pile driving operations, the PSO will shut down project operations until the individual has left the area. The PSOs will ensure they have visibility of the entire area of noise impacts for each species. For this action, the extent of noise propagation is limited based on local shoreline topography that would interrupt and reduce maximum noise transmission and is limited to the Kapalama Channel, Kapalama Basin and the Main Basin of Honolulu Harbor. Pile driving activities may require using multiple PSOs to ensure suitable coverage. Suggested locations include Pier 28 and Pier 33 to ensure visibility of monk seals or sea turtles that may enter the harbor or are at the project site. For non-pile-related activities, work will be postponed or halted when a monk seal or sea turtle is within 50 m and will only resume after the animals have voluntarily departed the area. Therefore, while ESA-listed species may hear some noise from pile driving activities, given the BMPs we are reasonably certain the effects from elevated noise will not reach the scale where harm or harassment occur and are therefore insignificant.

Exposure to waste and discharge

The action involves activities that may expose Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals to waste and discharge. Construction waste and debris, including plastic bags and other items, may enter the water, and construction equipment can cause accidental spills of petroleum-based products (lubricants, oil, and fuel).

Local and federal regulations prohibit the intentional discharge of pollutants into the marine environment. BMPs establish that the project will maintain an oil spill contingency plan to control and clean spilled petroleum products, and construction equipment and vehicles are checked daily before commencing work to reduce the risk of leaks and discharge. Activities will cease if leaks are detected from heavy equipment operations and will not proceed until repaired. If any accidental spill occurs, it is anticipated to be small in size, contained, and quickly cleaned up before entering the aquatic environment.

Based on the low likelihood of an ESA-listed species in the vicinity in the unlikely event of a spill and the adherence to the BMPs that will prevent or minimize potential exposure from spills, we are reasonably certain the probability of exposure to Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals, is extremely unlikely and, therefore discountable.

Loss of habitat

The USCG's action may expose Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals to potential habitat changes when the installation of 84 piles, including

5,641 ft2 of new overwater coverage, occurs at USCG Base Honolulu. Habitat complexity within Honolulu Harbor is relatively low due to shoreline development, high vessel traffic use, and repeated exposure to dredging and construction activities. Nearshore habitat diversity near the project is limited to unconsolidated sediment/mud in the deeper areas, piles, over-water structures provided by piers and docks, and hard substrate on which corals have varying presence.

Benthic disturbances may reduce foraging opportunities for sea turtles by removing or burying food items. Foraging habitat in the project area is already poor, and benthic surveys performed in 2023 did not identify any seagrass or macroalgae in the project footprint. Based on surveys by the USACE within Honolulu Harbor, foraging habitat (i.e., seagrass beds and algae) is minimal within the harbor, and green sea turtles are more likely to occur in the entrance channel and nearshore waters where seagrass beds are present (USACE 2015). Monk seals generally forage at or near the seafloor, prefer prey that hide in the sand or under rocks (NOAA Fisheries, 2023), and tend to avoid areas with human activity (Carretta et al. 2021). The Action Area does not contain suitable haul-out habitat for the Hawaiian monk seal, though some foraging habitat does occur, however, it is a marginal habitat due to the busy harbor and industrialized setting.

While the action area may provide minimal aquatic habitat for Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals, the areas are not unique and do not provide any type, quantity, or quality of forage that is not found nearby. Furthermore, nearby reefs outside of Honolulu Harbor provide better foraging habitats. Therefore, we are reasonably certain the effects of loss of habitat on Central North Pacific green sea turtles, hawksbill sea turtles, and Hawaiian monk seals will not reach the scale where harm or harassment occurs and are therefore insignificant.

Critical Habitat

The Action Area for the proposed activities overlaps with the proposed critical habitat for Central North Pacific green sea turtles. Physical and biological features of the proposed green sea turtle critical habitat that may be affected by the action include; 'from the mean high water line to 20 m depth, underwater refugia and food resources of sufficient condition, distribution, diversity, abundance, and density necessary to support survival, development, growth, or reproduction'. Potential stressors that may affect the critical habitat and will not occur but for the proposed action include the loss of habitat, exposure to wastes and discharge, and exposure to increased turbidity.

Loss of the essential features of the Central North Pacific green sea turtle's proposed critical may occur when the proposed project installs up to 7,093 ft^2 of new pier extensions. The location of the existing dock is within the footprint of the Berth G Expansion, making the actual increase in overall water coverage 5,641 ft^2. Nearshore habitat diversity is limited to unconsolidated sediment/mud in the deeper areas, piles, over-water structures provided by piers and docks, and hard substrate on which corals have varying presence. Considering the poor quality of the habitat for foraging, we are reasonably certain the effects of this loss of habitat will not measurably reduce the conservation value of the physical or biological features of the proposed critical habitat for the Central North Pacific green sea turtle and are therefore insignificant.

Pile driving and other in-water activities may cause temporary, localized, and short-term turbidity and disruptions of food distribution in the foraging area. We expect that turbidity may temporally impact water quality but do not expect significant changes to sediment

characteristics, water quality, or changes in prey quality. As discussed in the exposure to increased turbidity section, silt containment devices will minimize turbidity and siltation associated and contain any short-term turbidity events. Based on the implemented BMPs, we are reasonably certain, that the probability of appreciable exposure to elevated turbidity to essential features of Hawaiian monk seal and Central North Pacific green sea turtle critical habitat is extremely unlikely and therefore discountable.

Exposure to the essential features of the proposed critical habitat for Central North Pacific green sea turtles to waste and discharge may occur due to accidental leaks or spills from equipment associated with the action. As discussed in the exposure to waste and discharges section, the implemented BMPs will prevent any discharge into the marine environment and manage leaks or spills. As a result, we are reasonably certain the probability of exposure to any appreciable amounts of waste and discharge on the proposed Central North Pacific green sea turtle critical habitat is extremely unlikely and is therefore discountable.

Conclusion

Considering the information and assessments presented in the consultation request and available reports and information, and in the best scientific information available about the biology and expected behaviors of the ESA-listed marine species considered in this consultation, all effects of the proposed action are either discountable or insignificant. Accordingly, we concur with your determination that the proposed action is not likely to adversely affect the following ESA-listed species and designated and proposed critical habitats: endangered Hawaiian monk seals; threatened Central North Pacific green turtles; endangered hawksbill turtles; and Central North Pacific green sea turtle proposed critical habitat.

This concludes informal consultation under section 7 of the ESA for species under our jurisdiction. Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act directs Federal agencies to consult with NMFS on all actions or proposed actions that may adversely affect essential fish habitat (EFH). If necessary, it is your responsibility to request EFH consultation for this action with NMFS' Habitat Conservation Division.

Reinitiation Notice

Reinitiation of consultation is required and shall be requested by the USCG or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and if:

a) Take occurs to an ESA-listed species;
b) New information reveals effects of the action that may affect ESA-listed species or designated critical habitat in a manner or to an extent not previously considered;
c) The identified action is subsequently modified in a manner that causes an effect to ESA-listed species or designated critical habitat that was not considered in this concurrence; or
d) A new species is listed or critical habitat designated that may be affected by the identified action.

If you have further questions, please contact Jamie Marchetti at (808) 725-5108 or Jamie.marchetti@noaa.gov. Thank you for working with us to protect our nation's living marine resources.

Sincerely,

Dawn Golden

Dawn Golden
Assistant Regional Administrator
Protected Resources Division

NMFS File No.: PIRO-2023-02749
PIRO Reference No.: I-PI-23-2240-DG

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Appendix D

Notice of Availability

NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL ASSESSMENT FOR
SEAGOING BUOY TENDER MOORING AND STRUCTURAL PIER UPGRADES
U.S. COAST GUARD BASE HONOLULU

The U.S. Coast Guard (USCG) has prepared a Draft Environmental Assessment (EA) for the Seagoing Buoy Tender (WLB) and Structural Pier Upgrades at U.S. Coast Guard Base Honolulu. This Draft EA has been prepared pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA); Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of NEPA* (40 Code of Federal Regulations [CFR] Parts 1500-1508); Department of Homeland Security Management Directive 023-01; and Coast Guard Commandant Instruction (COMDTINST) 5090.1, *U.S. Coast Guard Environmental Planning Policy and Environmental Planning Implementing Procedures* (April 2019).

In 2022, the USCG identified the need for an extension to Berth G to create permanent berthing for the second WLB that is returning from mid-life maintenance availability. The Draft EA evaluates the USCG proposal to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 feet eastward from Berth G. This extension would allow for mooring of the second WLB, including fenders, mooring hardware, and services. The USCG would also demolish and dispose of the existing floating dock currently sited at Berth G, to include removal of foundations and piles, but excluding the floating gangway which may be reused. In addition to the Proposed Action, the Draft EA also considered two alternatives: an option to construct a new precast concrete floating dock that would attach to the new fixed Pier G, occupying space off Berth F; and construction of a small pier extension to fill a gap which would arise between Berth F and the new Berth G extension.

This Draft EA provides evidence and analysis for determining whether a Finding of No Significant Impact (FONSI) is appropriate or whether an Environmental Impact Statement (EIS) is necessary. The Draft EA presents the purpose and need for the action, the proposed action and alternatives, a description of the affected environment, and an analysis of environmental consequences. The Draft EA also documents cumulative impacts from projects in the vicinity that are proposed, under construction, recently completed, or anticipated to be implemented in the near future.

The Draft EA is available for public review electronically at:
https://uscghonoluluea.azurewebsites.net/USCG-Base-Honolulu-Public-Draft-EA.pdf.

Please provide any comments related to the technical sufficiency and adequacy of the EA to Mr. Aaron Goldschmidt at aaron.goldschmidt@wsp.com. Comments must be received no later than April 22, 2024.

Appendix E

Intergovernmental Review

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

Commanding Officer
United States Coast Guard
Facilities Design & Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
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Fax: 757-852-3495

23 March 2024

Dear Interested Party:

The U.S. Coast Guard (USCG) is proposing the extension of an existing berth at Base Honolulu to accommodate the return of a second 225-foot Seagoing Buoy Tenders (WLB) along with a new floating dock to accommodate an existing Fast Response Cutter (FRC).

In 2015 the USCG completed an Environmental Assessment (EA) and Biological Assessment (BA) for the proposed homeporting of two new National Security Cutters (NSCs) and associated infrastructure improvements at Base Honolulu. The EA and BA analyzed the potential impacts of proposed shore-side facility development and mooring configurations for the arrival of the NSCs, while also integrating other ongoing vessel assignment actions including decommissioning of Island-Class Patrol Boats (WPBs), stationing of FRCs, and the return of one or two previously assigned WLBs from their mid-cycle assessment. The 2015 EA identified three alternatives that addressed shore-side facility and berthing requirements. The Preferred Alternative (Alternative A), which was ultimately selected by the USCG, focused on NSC mooring at Berths A/B and D on the east side of Base Honolulu. The Preferred Alternative also considered three FRCs at Berths B and C, a WLB at Berth E, and two WPBs at Berths G and its attached floating dock, respectively. In 2016 the USCG prepared a Supplemental EA to more specifically address the in-water work associated with accommodating the NSCs at Berths A/B and D.

In 2022, the USCG identified the need for an extension to Berth G to create permanent berthing for the second WLB, along with a new floating dock to accommodate an existing FRC. These in-water modifications closely matched an alternative that was previously analyzed in the 2015 EA; however, this alternative was neither ultimately selected for execution in the 2015 EA nor identified as preferred during previous agency consultations. Due to the age of the 2015 EA and its baseline environmental information, the USCG has decided to prepare a new EA and BA. While these documents may incorporate elements of the 2015 EA and the 2016 Supplemental EA, this updated EA and BA will focus on Berths E-G of Base Honolulu and the execution of the current proposal.

The USCG proposes to extend Berth G by constructing a fixed, pile-supported pier extending approximately 110 feet eastward from Berth G. This extension would allow for mooring of the second WLB, including fenders, mooring hardware, and services. The USCG would also demolish and dispose of the existing floating dock currently sited at Berth G, to include removal of foundations and piles, but excluding the floating gangway which may be reused if the construction options below are executed.

The USCG is considering an option to construct a new precast concrete floating dock that would attach to the east side of the new fixed Pier G via a small gangway, occupying space off the Berth F area. This floating dock would support an existing 154-foot FRC.

The USCG is also considering an option to construct a small lateral pier extension to fill an angled gap which would arise between the Berth F bulkhead and the new Berth G pier extension. This lateral extension would be a pier-supported bridge section that would allow safer personnel, equipment, and vehicle transit to and from the Berth G area.

No dredging, waterfront stabilization, or structural upgrades to any other facilities are proposed.

Pursuant to the National Environmental Policy Act (NEPA), the USCG has prepared an EA that evaluates the potential effects on the environment of proposed in-water modifications as well as the No Action Alternative. The Draft EA includes the purpose and need for the in-water modifications project; a detailed description of alternatives under consideration; the affected environment; environmental consequences of implementation of the alternatives; and cumulative effects of the project. The EA will also incorporate results from a site-specific benthic habitat survey which will include the project area and its vicinity.

The USCG respectfully requests that your agency or organization review the Draft EA, which is available at https://uscghonoluluea.azurewebsites.net/USCG-Base-Honolulu-Public-Draft-EA.pdf. Please provide any comments related to the technical sufficiency and adequacy of the EA to Mr. Aaron Goldschmidt by e-mail at aaron.goldschmidt@wsp.com. Comments must be received no later than April 22, 2024.

Sincerely,

Neal E. Armstrong, P.E.
Captain, U. S. Coast Guard
Commanding Officer