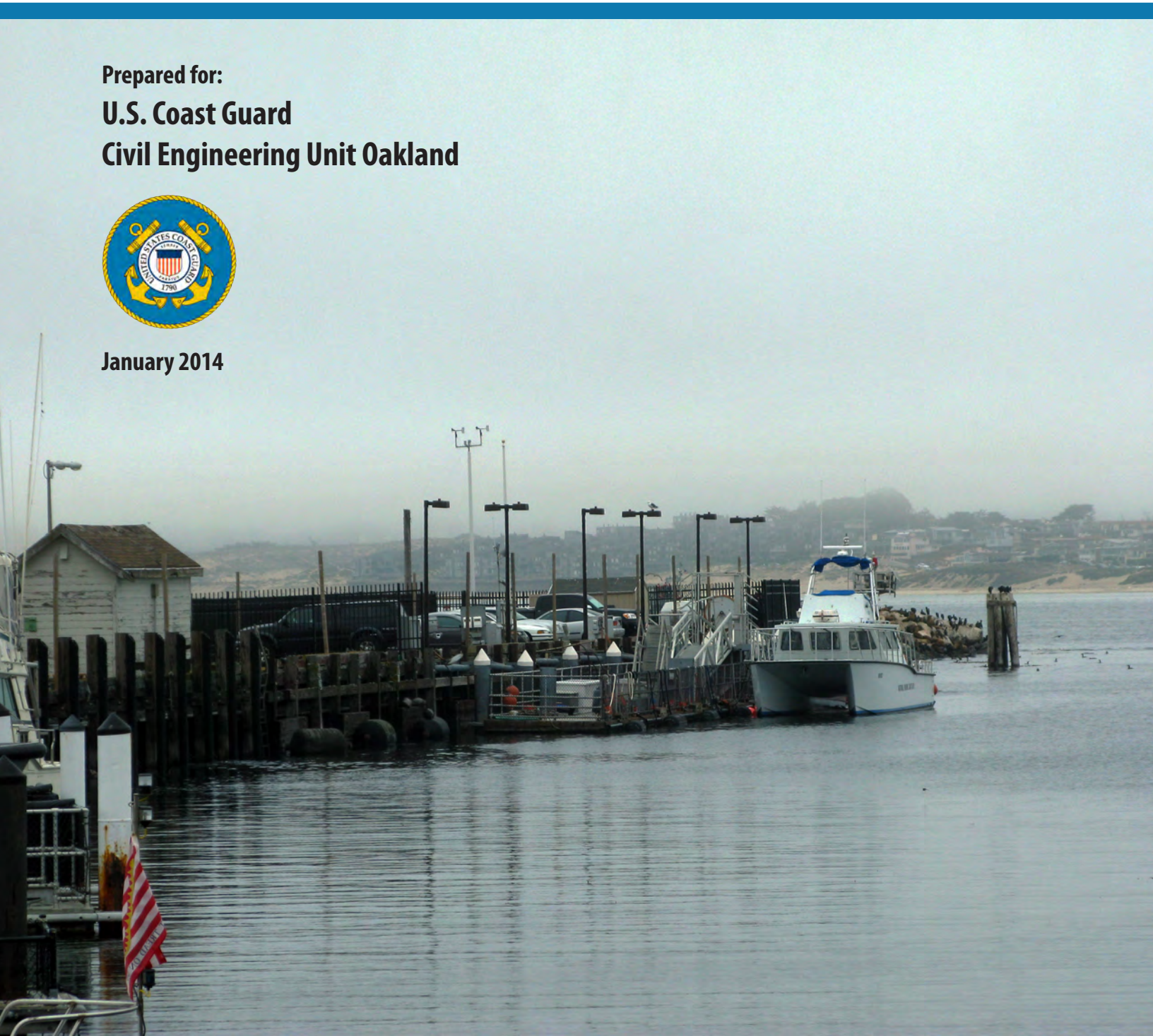
# Final Environmental Assessment for Waterfront Repairs at United States Coast Guard Station Monterey Monterey, California

Prepared for:

**U.S. Coast Guard**
**Civil Engineering Unit Oakland**

January 2014



# Final Environmental Assessment
# for
# Waterfront Repairs at
# United States Coast Guard Station Monterey

## Monterey, California

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January 2014

**UNITED STATES (U.S.) COAST GUARD**

**ENVIRONMENTAL ASSESSMENT**

**FOR**

**WATERFRONT REPAIRS**

**U.S. COAST GUARD STATION MONTEREY, MONTEREY, CALIFORNIA**

The environmental assessment for the proposed Waterfront Repairs at U.S. Coast Guard Station Monterey was prepared in accordance with Department of Homeland Security management Directive 023-01 and Coast Guard Commandant Instruction M16475.1D and is in compliance with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council of Environmental Quality Implementing Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This environmental assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This environmental assessment concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This environmental assessment also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during Environmental Assessment preparation.

| | | |
|---|---|---|
| 1/22/14 | Amanda Velasquez | Env. Protection Spec. |
| Date | Preparer/Environmental Project Manager | Title/Position |
| 1/22/14 | Gene Walter | CHIEF ENVIRONMENTAL MANAGEMENT BRANCH |
| Date | Environmental Reviewer | Title/Position |

In reaching my decision/recommendation on the USCG's proposed action, I have considered the information contained in this EA on the potential for environmental impacts.

| | | |
|---|---|---|
| 1/22/14 | T. Wade Gisclo, CAPT | Commanding Officer |
| Date | Responsible Official | Title/Position |

**U.S. COAST GUARD**

**FINDING OF NO SIGNIFICANT IMPACT**

**FOR**

**WATERFRONT REPAIRS**

**U.S. COAST GUARD STATION MONTEREY, MONTEREY, CALIFORNIA**

This action has been thoroughly reviewed by the USCG and it has been determined, by the undersigned, that this project will have no significant effect on the human environment. The environment assessment (EA) was made available for public review and public comments were considered in the final EA.

This finding of no significant impact (FONSI) is based on the attached USCG prepared EA, which has been independently evaluated by the USCG and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

| | | |
|---|---|---|
| 1/22/14 | | CHIEF ENVIRONMENTAL MANAGEMENT BRANCH |
| Date | Environmental Reviewer | Title/Position |

I have considered the information contained in the EA, which is the basis for this FONSI. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

| | | |
|---|---|---|
| 1/22/14 | T. Wade Welch, CAPT | Commanding Officer |
| Date | Responsible Official | Title/Position |

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# Acronyms and Abbreviations

| | |
|---|---|
| APE | Area of Potential Effects |
| BMP | Best Management Practices |
| CCRWQCB | Central Coast Regional Water Quality Control Board |
| CDFW | California Department of Fish and Wildlife |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CWA | Clean Water Act |
| dB | Decibels |
| DPS | Distinct Population Segment |
| EA | Environmental Assessment |
| EFH | Essential Fish Habitat |
| EO | Executive Order |
| EPA | U.S. Environmental Protection Agency |
| ESA | Endangered Species Act |
| ESU | Evolutionarily Significant Unit |
| FIRM | Flood Insurance Rate Map |
| FMP | Fishery Management Plan |
| FONSI | Finding of No Significant Impact |
| GHG | Greenhouse Gas |
| HAPC | Habitat Area of Particular Concern |
| IHA | incidental harassment authorization |
| MBTA | Migratory Bird Treaty Act |
| MBUAPCD | Monterey Bay Unified Air Pollution Control District |
| MHHW | Mean Higher High Water |
| MLLW | Mean Lower Low Water |
| MMPA | Marine Mammal Protection Act |
| NAHC | Native American Heritage Commission |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |
| NMFS | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| NRHP | National Register of Historic Places |

| | |
|---|---|
| Pier | USCG Station Monterey patrol boat pier |
| $PM_{10}$ | Particulate matter less than less than 10 microns in diameter |
| $PM_{2.5}$ | Particulate matter less than less than 2.5 microns in diameter |
| PVC | Polyvinyl chloride |
| SHPO | State Historic Preservation Officer |
| Station | United States Coast Guard Station Monterey |
| USC | United States Code |
| USCG | United States Coast Guard |
| USFWS | United States Fish and Wildlife Service |

# Chapter 1
# Introduction

The United States Coast Guard (USCG) proposes to repair and replace facilities that have deteriorated over time to improve and maintain the structural integrity of a patrol boat pier (Pier) and waterline at USCG Station Monterey (Station).

This Environmental Assessment (EA) is an evaluation of the potential environmental impacts of conducting waterfront repairs at the Station. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (Title 42 United States Code [USC], 4321, et seq.); the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA, at Title 40 of the Code of Federal Regulations (CFR), Sections 1500–1508 (40 CFR Parts 1500–1508); and the USCG's implementing procedures for NEPA outlined in Commandant Instruction M16475.1D. Because the project requires permits or approvals from state and local agencies that must comply with the California Environmental Quality Act (CEQA), this EA also includes discussion of topics relevant to compliance with CEQA (California Public Resources Code, Section 21000 et seq.).

Through the EA process, the USCG will determine the potential for the occurrence of adverse environmental effects from implementation of the proposed project and its alternatives. The process also serves as a method of informing the public about project alternatives, and allows for public input on the proposed project. The results of the EA will determine whether an Environmental Impact Statement is required, or whether a Finding of No Significant Impact (FONSI) will be issued.

## 1.1 Location and Site Description

The proposed project is located at Monterey Harbor, which is situated at the northeastern corner of the Monterey Peninsula (**Figure 1**). The Monterey Peninsula is 85 miles south of San Francisco, California, on the southern end of Monterey Bay.

Monterey Bay is one of the widest bays on the Pacific coast of the United States. Approximately 3.5 miles of coastline are within the City limits of Monterey, which comprise a small portion of the 360-mile-long coastline of the Monterey Bay National Marine Sanctuary. Land encompassing Monterey County generally consists of four prominent landscape types: the inland and coastal mountain ranges, the coastline and Monterey Bay, the Monterey Peninsula, and the Salinas and Carmel valleys. The coastal and valley lands in the central portion of the County support most of the County's population and urban development, including the City. The relatively undeveloped South County coastal and inland areas remain largely in agricultural production and open space. The Monterey Peninsula is characterized by a rugged coastline of granite and coastal sand dunes, as well as pine-covered ridgelines that separate the Peninsula from Carmel and Carmel Valley.

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Source: USGS 7.5' Topographic Quadrangles; Monterey (1983), Marina (1983) and Seaside (1983).

Project Vicinity

0 1,000 2,000 FEET

**PROJECT LOCATION**

Waterfront Repairs at
USCG Station Monterey
Monterey, California

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**FIGURE 1**

The Station is located at 100 Lighthouse Avenue in the City and County of Monterey, California. The Station's area of responsibility extends 50 miles offshore for approximately 120 nautical miles of coastline, from Point Año Nuevo south to the Monterey-San Luis Obispo County line, encompassing 5,000 square miles.

The Station's missions include maritime homeland security, search and rescue, maritime law enforcement, and public affairs. The Station works jointly with other agencies governing the Monterey Bay National Marine Sanctuary. The vessels that are used to support the Station's missions are 21- to 25-foot rigid-hull inflatable boats; a 41-foot utility boat; a 47-foot motor life boat; and an 87-foot patrol boat (i.e., the Hawksbill). A National Oceanic and Atmospheric Administration (NOAA) boat also uses the Station facilities. Water depths in the harbor range from 0 feet Mean Lower Low Water (MLLW) along the interior edge, to about 30 feet MLLW at the harbor mouth.

The Pier is located on the eastern portion of the Station's waterfront facility along a breakwater that extends approximately 1,300 feet east into Monterey Harbor. The Pier and floating docks are located on the southern side of the breakwater. A paved Pier access road extends approximately 800 feet along the breakwater. The Pier access road is accessible to the general public; however, the USCG facilities are secured by fencing. The eastern end of the breakwater is a Jetty, and is not accessible to the public; this area is inhabited throughout most of the year by seabirds, which use the Jetty for nesting during spring and summer; and by California sea lions, which use the Jetty as a haul-out site. The seabirds and California sea lions in the immediate project area are regularly exposed to human presence, boat traffic, and other common and continual disturbances at the project site and within Monterey Harbor, and are not easily deterred from the Jetty. Pacific harbor seals also use rocky outcroppings and waters within Monterey Harbor. The public is allowed to use a boat ramp at the head of the Pier.

The Pier is divided into eastern and western components. The western portion of the Pier is not structurally sound; is fenced to prohibit access; and is not in use. A floating dock located on the southern side of the eastern portion of the Pier serves the USCG Hawksbill, as well as the NOAA vessel. An additional floating dock, located to the west of the western pier, is reached from the Pier access road. A galvanized steel pipe runs under the Pier and provides water to the Pier's floating docks.

## 1.2 Project Background

Construction of the breakwater upon which the Pier sits was completed in 1934. The Pier was constructed by the early 1950s, of timber and steel material, and is supported by 64 timber piles. In 1995, 47 of the original timber piles were replaced with 14-inch steel pipe piles, and the remaining 17 piles were covered with polyvinyl chloride (PVC) wraps to extend their service life. These 17 timber piles have exceeded their service life due to marine borers (i.e., marine organisms, such as mollusks, that feed on wood particles) and exposure to the marine environment, and therefore are in need of replacement. The Pier deck and floating docks have also deteriorated as a result of exposure to the marine environment and regular use. Additionally, exposure to the marine environment over time has resulted in severe corrosion of the waterline, warranting its replacement.

## 1.3 Purpose and Need

To fulfill its mission, the Station needs functioning and accessible waterfront facilities. Over time, the existing Pier and waterfront waterline have deteriorated. The purpose of the project is to support the operational requirements of the Station, as well as a NOAA boat, which also uses these facilities.

## 1.4 Regulatory Framework

NEPA requires federal agencies to consider environmental consequences in their decision-making process. CEQ regulations mandate that all federal agencies use a systematic interdisciplinary approach to environmental planning, and the evaluation of actions that might affect the environment. The USCG's implementation of NEPA is guided by Commandant Instruction M16475.1D. These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation, which is designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. In addition to NEPA, the CEQ, and USCG regulations, this EA considers all applicable laws, regulations, and executive orders (EOs), including the following:

- Clean Air Act
- Clean Water Act (CWA)
- Coastal Zone Management Act
- Endangered Species Act (ESA)
- Migratory Bird Treaty Act (MBTA)
- Marine Mammal Protection Act (MMPA)
- National Historic Preservation Act (NHPA)
- Resource Conservation and Recovery Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- Toxic Substances Control Act
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks

Because the project requires permits or approvals from state and local agencies that must comply with CEQA, this EA also includes discussion of topics relevant to compliance with CEQA. CEQA was closely modeled on NEPA and requires public agencies to consider and disclose to the public the environmental implications of proposed actions. CEQA applies to all discretionary activities that are proposed or approved by California public agencies, including state, regional, county, and local agencies, unless an exemption applies. Although this EA is not a joint NEPA/CEQA document, discussion of topics relevant to CEQA was included to assist state and local agencies providing approval for this project in meeting CEQA compliance requirements.

## 1.5 Public and Agency Involvement

A list of agencies consulted during the preparation of this EA is presented in Chapter 6. Consultation activities pursuant to specific resources are summarized in the respective section of the document. For example, consultation in compliance with Section 7 of the Endangered Species Act is summarized in Section 3.1, Biological Resources.

### 1.5.1 Scoping

Scoping is the term used in the CEQ regulations implementing NEPA (40 CFR, Part 1500 et seq.) to define the early and open process for determining the scope of issues to be addressed in the planning process. The scoping process involves the public in identification of significant issues associated with proposed federal actions.

A 30-day scoping period was held from October 4 through November 2, 2012. The USCG mailed a letter describing the Proposed Action, and purpose and need for the action, to approximately 30 agencies and stakeholder groups requesting input on issues and concerns to be addressed in the EA. The Central Coast Regional Water Quality Control Board (CCRWQCB) submitted comments identifying permits and approvals that may be required for the project, and content that should be included in the EA to address these authorizations. The City of Monterey submitted comments stating its support of the USCG and the proposed improvements, and requesting that all staging be accommodated within the USCG facilities; that staging and construction activities not impact or impede access to the adjacent parking lot, public boat launch ramp, or Monterey Boatworks Company facility; and that the USCG follow best management practices (BMPs) in protecting the marine environment from construction impact, debris, and spills.

All scoping comments have been considered by the USCG, and addressed, where appropriate, in this EA.

### 1.5.2 Draft EA Review Period

On July 24, 2013, the Draft EA was made available to all interested federal, state, and local agencies and the general public for a 30-day review and comment period, in compliance with policies regarding open decision making. The USCG published a Notice of Availability of the Draft EA in the legal notices section of the *Monterey County Herald* on July 24, 2013. The Draft EA was also mailed to interested parties and agencies requesting paper copies. Additionally, the Draft EA was made available for review at the Monterey Public Library at 625 Pacific Street in Monterey. The comment period closed on August 23, 2012.

One comment letter was received during the comment period (Appendix B). The Ohlone/ Coastanoan-Esselen Nation expressed concern regarding potential disturbance of ancestral heritage sites. Refer to Section 3.2 for additional information.

## 1.6 Document Organization

In this EA, the environmental effects of the Proposed Action and the No Action Alternative are identified, evaluated, and documented. Chapter 2 is a description of the Proposed Action and No Action Alternatives, and other alternatives considered. The existing resource conditions and project impacts are described in Chapter 3. The existing conditions described in the Affected Environment constitute the baseline for analyzing the effects of the Proposed Action. Chapter 4 provides a comparative analysis of the impacts of the Proposed Action and alternatives. Chapter 5 summarizes the environmental significance of the Proposed Action. Chapter 6 contains a list of agencies contacted, and Chapter 7 lists the references cited in this document.

# Chapter 2
# Proposed Action and Alternatives

Two alternatives are analyzed in detail in this EA: the Proposed Action and the No Action Alternative. The No Action Alternative, which does not meet the project purpose and need, is described in Section 2.2, and was considered in this EA as required by NEPA. For the purposes of impact analyses, environmental documents must compare a No Action Alternative with the Proposed Action. The No Action Alternative examines the future without project conditions; that is, the future if the Proposed Action is not implemented or constructed.

## 2.1 Proposed Action

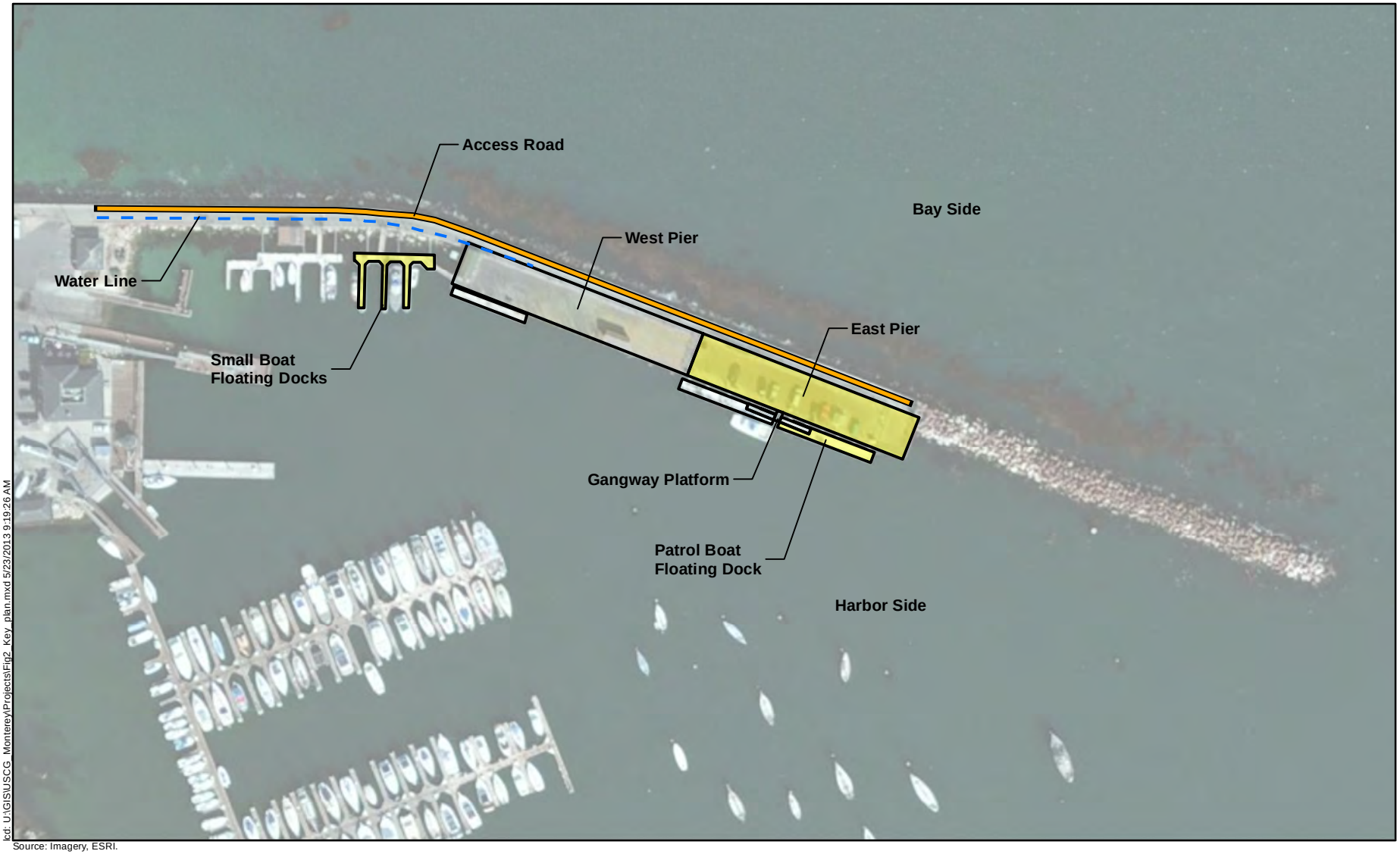
The USCG proposes to remove and replace 17 timber piles supporting the eastern portion of the Pier; replace the existing waterline; and improve associated structures to maintain the structural integrity of the Pier and waterline (**Figure 2**).

The Proposed Action would involve removing the existing timber deck, timber stringers, steel pile caps, steel support beams, and hardware to access the 17 timber piles that need to be replaced. The timber piles, which are approximately 14 to 16 inches in diameter and are covered with PVC wraps, would be removed through use of a vibratory extractor.

Each timber pile would then be replaced with a 14- to 18-inch diameter, 1/2-inch thick walled steel pipe pile that would be positioned and installed in the footprint of the extracted timber pile. The new steel pipe piles would not be filled with concrete. Other material and hardware removed to conduct the pile replacement would be replaced with in-kind materials. BMPs, including pollution and erosion control measures, would be employed during demolition and construction activities to prevent debris from falling into the water, and to minimize water quality degradation from construction operations.

Due to dense substrate at the project site, a majority of the steel pipe pile installation may require impact pile driving; however, pile driving would be conducted with a vibratory hammer to the extent feasible, with an impact hammer used for proofing the piles. Pre-drilling may occur, but would be discontinued when the pile tip is approximately 5 feet above the required pile tip elevation. If the steel pipe pile is unable to be driven 30 feet below the mudline with an impact hammer due to the substrate or Jetty armor, the pile would be posted onto the Jetty armor stone using 36-inch diameter concrete pedestals and dowels anchored into the armor stone. Concrete slurry would be used to cement stone within 5 feet of posted steel pipe piles to further secure the piles.

Pile extraction and driving equipment would be located on a barge positioned in a manner that would not impede access to the floating docks, or would be located at a point along the Pier access road that does not disrupt Pier access, and is secured from pedestrian movements.

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Source: Imagery, ESRI.

Access Road

Water Line

Deck and Pier Improvements

0 75 150 FEET

**PROJECT FEATURES**

Waterfront Repairs
USCG Station Monterey
Monterey, California

28068166

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**FIGURE 2**

Pile extraction driving equipment would not be operated from the existing Pier. A bubble curtain would be used during all pile driving with an impact hammer. The bubble curtain would create an underwater wall of air around the pile to dissipate in-water sound waves.

Several proposed ancillary repairs to the Pier deck and floating dock would also occur. Specifically, under-deck repairs would restore bearings at pedestals and sea walls with non-shrink grout pads, and replace underwater pile struts. Above-deck repairs would include removing abandoned mooring hardware, replacing missing sections of curb, and replacing isolated deck planks that have deteriorated. Repairs to the floating dock would include repairing tie rods, repairing concrete spall, relocating and securing gangway wear plates, replacing cleats, replacing missing rubstrips, and replacing underwater pile struts.

Repairs to the waterline would involve in-kind replacement of approximately 175 feet of 3-inch diameter galvanized piping. The existing waterline is on the outboard beam of the Pier, and is mounted by hangers. The new waterline would be supported every 4 feet in the same alignment as the existing configuration. Three top-side water standpipes would be replaced as part of the waterline replacement. All work for replacement of the waterline would occur above Mean High Water.

Construction would be conducted during daylight hours (7 a.m. to 7 p.m.), Monday through Friday, and construction duration would be a total of approximately 45 to 60 days. Construction would commence as early as the 2014 fiscal year; however, project components may be implemented over several years, depending on available funding and operational needs. Based on the proposed repairs, it is assumed that two piles per day would be both extracted and installed. Pile replacement activities would therefore occur for an estimated maximum of 10 days of the total construction time. It is assumed that driving time would be about 20 to 25 minutes per pile (vibratory or impact). It is assumed that vibratory extraction of the existing piles would take about 10 minutes per pile. This would result in, at most, 60 to 70 minutes of pile driving per day, or 8.5 to 10 hours of underwater and airborne noise generation from pile driving over the course of the project construction. Vehicles and heavy equipment would likely include dump trucks, pick-up trucks, a vibratory or impact hammer located on a barge, a diesel tugboat, a gasoline utility boat, diesel generator, air compressor, and a variety of small tools such as table saws, welders, and drills.

## 2.2 No Action Alternative

Under the No Action Alternative, no improvements would be implemented at the Pier. The Pier and floating dock facilities would continue to deteriorate over time. The USCG could temporarily lose use of these facilities due to structural inadequacy or failure, compromising its ability to meet its mission. Under this alternative, the USCG would continue routine maintenance of its facilities, as well as minor repairs as needed to maintain or restore existing facilities that have deteriorated. Minor repairs may include filling gaps between the Pier and Jetty concrete slab, and replacement of hardware on pile girders that have corroded. The No Action Alternative would not meet the project's purpose and need.

## 2.3 Alternatives Considered but Eliminated from Detailed Analysis

Several other alternatives to the Proposed Action were identified and evaluated during project planning and development. These alternatives were eliminated from further consideration due to the reasons discussed below, and are therefore not analyzed in detail in this document.

### 2.3.1 Removal of the Existing Pier and Construction a New Pier

The USCG considered removal of the existing Pier (i.e., both eastern and western portions) and construction of a new pier at the same location. Although this alternative would meet the purpose and need of the project, this option was eliminated from further consideration due to the increased cost and substantially greater environmental impacts that would result from the removal and replacement of the entire Pier.

### 2.3.2 Construction of a New Pier at a Different Location

The USCG considered abandoning the existing Pier and constructing a new pier in a different location within Monterey Bay. This option would have substantially increased costs and environmental impacts. Because there is limited available pier space in Monterey Bay, it is anticipated that a new pier would have to be sited at a different part of the Bay, away from the other existing USCG facilities. Dispersing its facilities could compromise the Station's operations; therefore, this alternative would not meet the purpose and need for the project.

# Chapter 3
# Affected Environment and Environmental Consequences of the Proposed Action

The Affected Environment provides an environmental baseline of each resource category, and the conditions on and adjacent to the project site at the time this document was prepared. The regulatory framework of applicable laws, ordinances, regulations, and guidance pertinent to the resource category is also presented, where appropriate.

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

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

The following resources were considered, but are not addressed in the detailed impact analysis because the resources are not present within the project area: agricultural lands and forest resources, Indian trust assets, and mineral resources. Based on the limited nature of work that would occur under the Proposed Action, and because the project area is confined to a portion of the existing Pier and Jetty that is limited to government-only access, no adverse impacts would occur on socioeconomics, environmental justice, population and housing, public utilities, and public services (i.e., fire protection, police, schools, and parks); therefore, these resources were not addressed in the detailed impact analysis.

The resources discussed in the sections that follow are:

- Biological resources
- Cultural resources
- Geology and soils
- Water resources

- Hazardous materials and public safety
- Air quality and greenhouse gases
- Noise and vibration
- Coastal zone
- Visual resources
- Recreation
- Transportation, Navigation, and Access

## 3.1 Biological Resources

Under the federal ESA, all federal agencies, in consultation with the Secretary of the Interior, must take all necessary precautions to ensure that their actions do not jeopardize federally listed endangered or threatened species, or destroy or degrade their habitats. The ESA provides a program for conserving threatened and endangered plants and animals and the habitats in which they are found. It is designed to protect critically imperiled species from extinction due to "the consequences of economic growth and development untempered by adequate concern and conservation." Under Section 7 of the ESA, federal agencies consult with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) on proposed actions that may adversely affect species and designated critical habitat protected under the ESA. The California ESA operates in a similar fashion to the federal ESA, but is administered by the California Department of Fish and Wildlife (CDFW). Certain species that are listed under the ESA may not be listed under the California ESA, or may have different listing status.

The MBTA established special protection for migratory birds by regulating hunting or trade in migratory birds. The MBTA prohibits anyone to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Definition of "take" includes any disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young).

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), establishes a management system for national marine and estuarine fishery resources. Among other provisions, such as annual catch limits, this legislation mandates the identification of essential fish habitat (EFH), which is defined as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," for all managed species. Federal agencies consult with the NMFS on proposed actions that may adversely affect EFH.

The MMPA, adopted in 1972, makes it unlawful to take or import any marine mammals and/or their products. Under Section 101(a)(5)(D) of this act, an incidental harassment permit may be issued for activities other than commercial fishing that may impact small numbers of marine mammals. An incidental harassment permit covers activities that extend for periods of not more than 1 year, and that will have a negligible impact on marine mammals. Amendments to this act in 1994 statutorily defined two levels of harassment. Level A harassment is defined as any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal in the wild. Level B harassment is defined as harassment having potential to disturb marine

mammals by causing disruption of behavioral patterns—including, but not limited to—migration, breathing, nursing, breeding, feeding, or sheltering.

Biological resources include special-status wildlife, fish, plants, or sensitive habitats, and also include any biological resources that are managed by federal, state, or local agencies. A list of special-status species that may occur in the vicinity of the project area was developed by collecting information from the USFWS website (USFWS, 2013) and the California Natural Diversity Database using a 10-mile radius surrounding the project area (CDFG, 2012), and eBirds data (eBirds, 2013). The information provided in the USFWS species list also includes federally listed species that are under the jurisdiction of the NMFS, such as marine mammals and anadromous fish.

Appendix A includes a brief description of habitat requirements and range of the special-status species that may occur in the study area, and the potential for each species to occur in the project study area. For the purpose of this analysis, the project's study area for biological resources includes the work footprint at the Pier (i.e., the project area) and extends outward to include areas that may be impacted by underwater sound, airborne sound, or changes in water quality during construction; this includes the waters of Monterey Harbor and extends outward into a portion of Monterey Bay. Several of the marine species presented on the list are unlikely to occur, indicating that while they are unlikely to use the study area on a regular basis, they may rarely occur as incidental or transitory individuals. The discussion in this section focuses on species considered likely to occur in the study area; species considered unlikely to occur in the study area are not further addressed. As noted below where applicable, some species considered likely to occur in the study area are unlikely to occur in the project area.

### 3.1.1 Affected Environment

The project area is located along the coastline of Monterey Bay, a unique marine area with a very diverse ecosystem and high productivity for marine life. Wildlife in the immediate project area is regularly exposed to human presence, boat traffic, and other common and continual disturbances at the project site and within Monterey Harbor. The terrestrial portions of the study area are entirely developed and are not expected to support special-status species.

The following sections describe the marine vegetation, benthic invertebrates, sea turtles, special-status fish, essential fish habitat, marine mammals, and birds within the study area.

#### Marine Vegetation

The study area is host to a variety of marine vegetation, including green, red, and brown algal species. The granitic boulders that compose the Jetty are extensively colonized with common species, such as sea grapes (*Botryocladia pseudodichotoma*), Turkish towel (*Chondracanthus* sp.), brown algae (*Dictyoneurum californicum*), and sea lettuce (*Ulva* sp.). Two special-status species, surf grass (*Phyllospadix scouleri*) and eelgrass (*Zostera marina*), have potential to occur in the study area (Table 1); however, these species are unlikely to occur in the project area. As part of a special-status community, kelp forest, giant kelp (*Macrocystis pyrifera*) is known to exist in the project area either as drifting individuals or anchored to the pilings and boulders of the Pier (Herrlinger, 2001).

**Table 1: Special-Status Marine Vegetation with Potential to Occur in the Study Area**

| Common Name | Scientific Name | Federal/State Status |
|---|---|---|
| Eelgrass | *Zostera marina* | No Take |
| Surf grass | *Phyllospadix scouleri* | No Take |
| Kelp forest (giant kelp, bull kelp) | *Macrocystis pyrifera*, *Nereocystis luetkeana* | HAPC |
| Notes:<br>*No Take – Take or possession is prohibited under the California Fish and Wildlife Code*<br>*HAPC – Habitat of Particular Concern, Pacific Groundfish Fishery Management Plan* | | |

*Eelgrass*

Eelgrass is a grass-like angiosperm (flowering plant) adapted to life in submarine environments. Valued for its unique ecology, eelgrass beds provide an essential three-dimensional habitat that often plays a key role in developmental and migratory stages for a variety of wildlife species, including shellfish, juvenile salmonids, and numerous invertebrates (Nightingale and Simenstad, 2001; Simenstad and Cordell, 2000). Eelgrass beds are known to occur within 0.5 mile of the project area (NOAA, 2006). Although suitable substrate of sand and silt clay (i.e., mud) is present on the harbor bottom surrounding the project area, no eelgrass has been observed (Herrlinger, 2001). It is likely that turbidity generated from human activities in and around the project area results in decreased photic (light penetration adequate for photosynthesis) depth, rendering the harbor bottom less hospitable to plant life. Although eelgrass beds are known to occur in the study area, eelgrass is unlikely to occur in the project area.

*Surf Grass*

Similar to eelgrass, surf grass is a flowering marine plant that resembles terrestrial grass in appearance. It grows exclusively on rocky intertidal substrates colonized by algae, among which surf grass seedlings germinate (Langstroth, 2000). Surf grass plays a key role in the prevention of erosion of rocky substrate, in addition to fostering the transition of rocky habitat into beaches or sublittoral sand flats by trapping sand and other material among its roots and rhizomes. However, once a significant amount of sand is built up on the rocky substrate, it becomes unsuitable for surf grass rejuvenation, resulting in a die-off of the surf grass and the return of the habitat to exposed rock with the erosion of the sand (eFloras, 2008). Suitable habitat for surf grass exists within the study area, but due to the level of disturbance and turbidity in the project area, and based on the lack of reported occurrences within the project area, surf grass is unlikely to occur in the project area.

*Kelp Forest*

The kelp forest community generally occurs in subtidal areas where natural bare rock is present. Kelp forest is dominated by large species of kelp, such as giant kelp (*Macrocystis pyrifera*) and bull kelp (*Nereocystis luetkeana*), which can grow in water depths of 10 to 100 feet,

and grow tall enough to reach the surface (Edwards and Foster, 2012). A sub-canopy of smaller kelp species typically grows in stands of kelp forest. This community is designated as a Habitat Area of Particular Concern (HAPC) under the Pacific Groundfish Fishery Management Plan (FMP). Based on interpretation of aerial photography and a reconnaissance field visit, kelp forest habitat does not occur within project area, but occurs nearby—immediately to the north of the breakwater, from approximately the point at which water depth becomes subtidal to nearly the end of the Jetty. A large tract of kelp forest occurs to the northwest of the breakwater. Juvenile and subadult/adult giant kelp plants were identified during a 2001 aquatic vegetation survey at the USCG Pier, conducted prior to construction of the Hawksbill floating dock. During that survey, seven drift (unattached) plants were found southwest of the floating dock area, one plant was found attached to the Bay bottom approximately 4 feet from the eastern edge of the Pier, and 11 plants were observed at mid-depth (8 to 10 feet) attached to Pier pilings. Drift plants may occur in the project area at any time, depending on currents and wave action. The attached plants recorded in the project area in 2001 may not persist annually, due to low light levels and frequent physical disturbance from boats (Herrlinger, 2001).

**Benthic Invertebrates**

Benthic invertebrates live within, or on the substrate of, the intertidal zone, as well as on the sea floor. These invertebrates provide important food sources for a variety of special-status wildlife, such as southern sea otter, migratory birds, and special-status fish, and are an important part of marine ecosystems. Benthic invertebrate communities can be broadly divided into two groups: hard bottom communities (i.e., rock, man-made structures), and soft bottom communities (i.e., sand or mud), which are both present in the study area, as described below. One federally listed benthic invertebrate species has potential to occur in the study area: the black abalone (*Haliotis cracherodii*). Benthic invertebrates are also an important element of EFH.

In the study area, hard bottom communities are present in areas of natural bare rock and hard, placed marina structures such as piles, floating docks, and breakwater structures. Hard bottom communities are typically dominated by a variety of invertebrates, including mussels, barnacles, periwinkle snails, limpets, chitons, starfish, sea anemones, bryozoans, and tunicates. Fish and invertebrate species that use this community vary with depth, wave energy, and substrate. Black abalone has potential to occur in the study area where hard-bottom communities are present, and water depths are less than 20 feet in relation to MLLW.

Soft bottom communities are present within the study area in areas protected from high wave energy, and where sand and silt can accumulate. Like the hard bottom community, the composition of soft bottom communities varies with depth (Edwards and Foster, 2012). In the intertidal and low subtidal zone, the community is dominated by amphipods and other small crustaceans that live on or within the constantly shifting sand. Bands of sand dollar beds may be present in the upper subtidal zone. In deeper waters where the sediment is more stable, polychaete worms that live within the soft substrate dominate the community, along with mollusks and brittle stars. A variety of crabs and fish forages within this community, such as surfperch, striped bass (*Morone saxatilis*), and starry flounder (*Platichthys stallatus*).

*Black Abalone*

Black abalone was federally listed as endangered on January 14, 2009. Black abalone populations range from Point Arena in northern California to Bahia Tortugas and Isla Guadalupe, Mexico. The species is considered rare north of San Francisco and south of Punta Eugenia, Mexico. Black abalone are marine gastropod mollusks found in rocky intertidal and subtidal habitats. They are herbivorous—thought to primarily feed on giant kelp and feather boa kelp. Black abalone broadcast spawn into the water primarily during the summer months. Black abalone are known to occur off of the coast of Monterey Point (SIMoN, 2012). Designated critical habitat for black abalone is present within the study area; however, much of the Monterey Harbor has sandy substrate, making it unsuitable for this species. Although unlikely, this species may be present on the intertidal or subtidal portions of the Jetty rip-rap.

**Sea Turtles**

The study area has the potential to support one sea turtle species: the leatherback sea turtle (*Dermochelys coriacea*). The leatherback sea turtle was listed as endangered throughout its range on June 2, 1970. Leatherback sea turtles are pelagic, migratory animals with a range that includes most of the Pacific, Atlantic, and Indian oceans. Leatherbacks feed on soft-bodied pelagic prey such as jellyfish. In the summer and fall, they migrate from tropical nesting grounds and cross the Pacific Ocean to forage on the west coast of the United States for such prey (NMFS and USFWS, 1998). This species is occasionally spotted foraging in Monterey Bay, and although nearshore sightings are rare, leatherbacks may be present in the study area from late summer to early fall. Tracking studies show the highest likelihood of occurrence in Monterey Bay during August and September (Benson et al., 2007). Leatherbacks were not observed during biological monitoring conducted in August 2008 for a previous construction project at the Pier (Hoover and Harvey, 2008).

Critical habitat was designated for this species along the United States west coast on January 26, 2012, and includes the marine areas from the line of extreme low water from Point Sur in southern California north to Point Arena in northern California. The critical habitat extends westward to a water depth of 263 feet. Monterey Bay, which includes the study area, is included in the designated critical habitat for this species.

**Special-Status Fish**

The study area has the potential to support several special-status fish species (Table 2). Designated critical habitat for southern distinct population segment (DPS) green sturgeon is also present in the study area.

**Table 2: Special-Status Fish with Potential to Occur in the Study Area**

| Common Name | Scientific Name | Federal/ State Status | Critical Habitat |
|---|---|---|---|
| Chinook salmon, California coastal ESU | *Oncorhynchus tshawytscha* | FT | Designated critical habitat is not present in the study area. |
| Coho salmon, central California coast ESU | *Oncorhynchus kisutch* | FE, SE | Designated critical habitat is not present in the study area. |
| Green sturgeon, southern DPS | *Acipenser medirostris* | FT | Designated critical habitat present in the marine portions of the study area below MHHW. |
| Steelhead, central California coast DPS | *Oncorhynchus mykiss* | FT | Designated critical habitat is not present in the study area. |

Notes:
*ESU – Evolutionarily Significant Unit*
*DPS – Distinct Population Segment*
*FT – Federally Threatened: species likely to become endangered within the foreseeable future*
*FE – Federally Endangered: species in danger of becoming extinct throughout all or a significant portion of its range*
*ST – State Threatened: species likely to become endangered within the foreseeable future*
*SE – State Endangered: species whose continued existence in California is in jeopardy*
*MHHW – Mean higher high water*

*California Coastal Chinook*

The California coastal Chinook evolutionarily significant unit (ESU[1]) (*Oncorhynchus tshawytscha*) was federally listed as threatened on September 16, 1999, and its status was reaffirmed on June 28, 2005. The ESU includes all naturally spawned populations of Chinook salmon from rivers and streams south of the Klamath River to the Russian River, California, as well as seven artificial propagation programs. This ESU consists of fall-run Chinook. Out-migrating juveniles use estuarine habitat for rearing during their migration. Chinook salmon remain in the ocean 2 to 5 years, where they mature before returning to their natal streams to spawn.

While in the marine environment, Pacific salmon travel widely within coastal waters. As a result, this species may occasionally be present within the study area.

*Central California Coast Coho Salmon*

The Central California Coast ESU of Coho salmon (*Oncorhynchus kisutch*) was federally listed as threatened on October 31, 1996; this status was elevated to endangered on June 28, 2005. The species was state-listed as endangered on March 30, 2005. This ESU includes all naturally spawned populations of Coho salmon in coastal streams from Punta Gorda in northern California, south to and including the San Lorenzo River in central California. Four artificial

[1] An ESU is a discrete breeding population of organisms that is treated as a separate species under the ESA.

propagation programs are also included in the ESU. While in the marine environment, Coho salmon travel widely within coastal waters. As a result, this species may occasionally be present within the study area.

*Green Sturgeon*

The green sturgeon (*Acipenser medirostris*) southern distinct population segment (DPS[2]) was federally listed as a threatened species on April 2006. This DPS includes all populations that spawn south of, but not including, the Eel River. Currently, the only known spawning location of southern DPS green sturgeon is the Sacramento River system (NMFS, 2009).

In coastal waters, this species ranges from Ensenada, Mexico to Southeast Alaska. Adult green sturgeon return to freshwater every 3 to 5 years to spawn before returning to the ocean. Juveniles migrate downstream before they are 2 years old, and rear in estuaries before migrating to the ocean. On a yearly basis, juveniles and adults may congregate and feed in estuaries, particularly during the summer and fall months (NMFS, 2012). The distribution of green sturgeon in the Pacific Ocean is not well understood, and this species has potential to occur within the study area.

Critical habitat for the southern DPS green sturgeon was designated on October 9, 2009 by NMFS. The designation includes coastal United States marine waters from and including Monterey Bay, California, north to Cape Flattery, Washington, including the Strait of Juan de Fuca, to the United States border with Canada (NMFS, 2009). The critical habitat designation extends from Mean Higher High Water (MHHW) to a depth of 360 feet (NMFS, 2009).

*Central California Coast Steelhead*

The central California coast DPS of steelhead (*Oncorhynchus mykiss*) was federally listed as a threatened species on August 18, 1997, and its threatened status was reaffirmed on January 5, 2006. This DPS includes all naturally spawned anadromous steelhead populations below natural and manmade impassable barriers in California streams from the Russian River to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin rivers. This DPS also includes two artificial propagation programs.

This DPS is composed of winter-run steelhead. Steelhead display the most variability in lifecycle of the anadromous salmonids, spending one to several years in both the freshwater and marine environments before maturation. Some individuals may never migrate to the ocean, and mature within fresh water. While out-migrating, juveniles use estuarine areas for rearing and feeding. While in the marine environment, steelhead travel widely within coastal waters. As a result, this species may occasionally be present within the study area.

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[2] A DPS is an independent population that is treated as a unique species under the ESA.

**Essential Fish Habitat**

The portion of the study area below MHHW is designated as EFH under several FMPs: the Pacific Coast Salmon FMP, West Coast Highly Migratory Species FMP, Coastal Pelagic Species FMP, and the Pacific Groundfish FMP. A portion of Monterey Bay (Monterey Canyon) is also designated as a HAPC under the Pacific Groundfish FMP. Kelp forest and rocky reefs both occur within the study area and are designated as HAPCs. Table 3 presents a list of species managed under these plans that may occur in the study area.

The fish species listed in Table 3 use a variety of habitats for foraging, including benthic habitat, open water, and intertidal areas. In particular, the existing riprap, Pier structures, and kelp forest habitat in the study area may be regularly used by species managed under the Pacific Groundfish FMP. The open water portions of the study area may be regularly used by species managed under the Coastal Pelagic Species and West Coast Highly Migratory Species FMPs.

Based on interpretation of aerial photography, rocky reef and kelp forest habitats occur within the study area. Rocky reef habitat consisting of riprap placed to protect the Pier extends the length of the Pier and continues to form a breakwater to the east of the Pier. As described above, a large tract of kelp forest occurs to the northwest of the breakwater.

**Marine Mammals**

Several species of marine mammals are known to, or have potential to, occur in the study area, as shown in Table 4. One of these species, the southern sea otter (*Enhydra lutris nereis*), is listed under ESA and is protected under the MMPA. The remainder of the marine mammal species in Table 4 are provided protection under the MMPA, although they are not listed under the ESA.

California sea lions (*Zalophus californianus*) are by far the most abundant marine mammal in the study area. They are present at the Jetty and harbor area year-round; the Jetty is one of the major haul-out sites for this species in Monterey Bay. Most of the California sea lions at the Jetty are immature males, although large adult males have also been observed (Harvey and Hoover, 2009). Females tend to reside year-round near the Southern California breeding grounds. Counts of California sea lions hauled-out at the Jetty and harbor area were obtained from Mr. Mark Lowry of NMFS (Lowry, 2012). Counts ranged from 1 to 1,124 individuals. The highest number of individuals was from the December 1998 survey, during an El Niño period with warmer ocean temperatures in the winter. The December 1998 count was not typical, because many individuals stay north during these conditions and do not travel south to the typically warmer waters of the Channel Islands, where most breeding and pupping occurs (Lowry, 2012). The data indicate that there is a year-round average of 250 California sea lions present in the study area, with the majority hauled-out on the Pier and Jetty.

During the winter and spring months, the entire California gray whale (*Eschrichtius robustus*) population migrates the along the coast, generally within 3 kilometers of the Monterey Bay coastline, traveling to their summer feeding grounds in the Bering Sea and to their winter breeding grounds in Baja California. Although gray whales may occur in the study area, gray whales venturing into the shallow waters of the mouth of the Monterey Harbor and into the project area would be a rare occurrence.

**Table 3: EFH Managed Species Potentially Occurring in the Study Area**

| Common Name | Scientific Name |
|---|---|
| **Pacific Coast Salmon FMP** | |
| Chinook salmon | *Oncorhynchus tshawytscha* |
| Coho salmon | *Oncorhynchus kisutch* |
| **West Coast Highly Migratory Species FMP** | |
| Bigeye thresher shark | *Alopias superciliosus* |
| Common thresher shark | *Alopias vulpinus* |
| **Coastal Pelagic Species FMP** | |
| Jack mackerel | *Trachurus symmetricus* |
| Pacific anchovy | *Engraulis mordax* |
| Pacific (chub) mackerel | *Scomber japonicas* |
| Pacific sardine | *Sardinops sagax caerulea* |
| **Pacific Groundfish FMP** | |
| Arrowtooth flounder | *Atheresthes stomias* |
| Butter sole | *Isopsetta isolepis* |
| Cabezon | *Larimus breviceps* |
| Curlfin sole | *Pleuronectes decurrens* |
| Dover sole | *Microstomus pacificus* |
| English sole | *Parophrys vetulus* |
| Flathead sole | *Hippoglossoides elassodon* |
| Kelp greenling | *Hexagrammos decagrammus* |
| Ling cod | *Ophiodon elongates* |
| Leopard shark | *Triakis semifasciata* |
| Pacific cod | *Gadus macrocephalus* |
| Pacific sanddab | *Citharichthys sordidus* |
| Pacific whiting (hake) | *Merluccius productus* |
| Petrale sole | *Eopsetta jordani* |
| Rex sole | *Glyptocephalus zachirus* |
| Rock sole | *Lepidopsetta bilineata* |
| Rockfish | *Sebastes* sp. |
| Sand sole | *Psettichthys melanostictus* |
| Skate | *Raja* sp. |
| Soupfin shark | *Galeorhinus zyopterus* |
| Spiny dogfish | *Squalis acanthius* |
| Starry flounder | *Platichthys stellatus* |

**Table 4: Special-Status Marine Mammals with Potential to Occur in the Study Area**

| Common Name | Scientific Name | Federal/State Status | Critical Habitat |
|---|---|---|---|
| California sea lion | *Zalophus californianus* | MMPA | N/A |
| Gray whale | *Eschrichtius robustus* | MMPA | N/A |
| Harbor porpoise | *Phocoena phocoena* | MMPA | N/A |
| Pacific harbor seal | *Phoca vitulina* | MMPA | N/A |
| Southern sea otter | *Enhydra lutris nereis* | FT, MMPA | None designated |

Notes:
*FT – Federally Threatened: species likely to become endangered within the foreseeable future*
*MMPA – Species protected under the Marine Mammal Protection Act*
*N/A – Protection under the MMPA does not provide for critical habitat designation for a species*

Harbor porpoises (*Phocoena phocoena*) may be present in Monterey Bay year-round, but in relatively low numbers. Harbor porpoises are found in shallow sandy bottom regions of the Monterey Bay shelf (Monterey Bay Whale Watch, 2012), often within 1,000 feet of shore (Sekiguchi, 1995). They tend to be more abundant in areas north of Monterey Bay (Barlow, 1988). Although the species could occur in the study area, Sekiguchi (1995) reported most sightings in Monterey Bay in the northern portion of the Bay, just north of Moss Landing.

Pacific harbor seals (*Phoca vitulina*) are much less abundant in the study area than California sea lions. Annual surveys by NMFS counted 28 Pacific harbor seals in the Monterey Harbor in 2004, and one in 2005 (Lowry, 2012). During repairs on the Pier in 2009, Pacific harbor seals were occasionally observed in nearby waters, but were never observed to haul-out on the Jetty (Harvey and Hoover, 2009). Pacific harbor seals may haul-out on shallow beaches across the harbor from the Jetty.

Southern sea otters are regularly observed within the Monterey Harbor. Data from 2012 indicate that there are approximately 4 southern sea otters per 1,640 feet of coast line within the study area (United States Geological Survey, 2012). At this density, there are expected to be approximately 8 southern sea otters within Monterey Harbor, and approximately 40 to 48 throughout the entire study area.

**Birds**

*Federally Listed Birds*

No federally listed birds have the potential to occur in the study area. Although the California brown pelican (*Pelecanus occidentalis californicus*) was once federally listed and has the potential to occur in the study area, the species was delisted in 2009 (74 FR 59444).

*Other Special-Status Birds Species*

Other protected birds include birds that are state listed, protected under MBTA, or fully protected by CDFW. Of the special-status bird species listed in Appendix A, the species that are

most likely to occur within the study area are those that use nearshore habitats for nesting or foraging. Table 5 shows the 26 protected bird species with potential to occur in the study area.

Nearshore seabirds roost and forage in coastal waters, and the eight species identified in Table 5 can be found year-round within the study area. The Jetty is an active roosting site for California brown pelican, Brandt's cormorant, and various gulls. Seabirds are particularly active at the eastern end of the Jetty, where Brandt's cormorants (and possibly other species) nest during spring and summer. Floating docks and structures associated with the Station are also used by seabirds. The remaining portion of the study area also contains other, minor roosting sites. The two sea duck species identified in Table 5 winter in open coastal areas, where they forage in shallow, sheltered water. Both species have been observed within the study area from November to March. Shorebirds and wading birds forage along open, rocky shorelines or in shallow waters; the nine species identified in Table 5 can be found in the study area year-round, with varying frequency. Loons and grebes winter in open coastal areas; the seven species identified in Table 5 are most likely to occur within the study area during winter months; however, the Pacific loon and common loon have been reported from September through June.

Overall, reported bird sightings at the project site (eBird, 2013) indicate a higher diversity of bird species during winter and spring (roughly November through April).

### 3.1.2 Environmental Consequences

**Proposed Action**

**Marine Vegetation**

Under California regulations [*Title 14 §30.10 of the California Code of Regulations under the authority of Fish and Game Code §6750*], eelgrass and surfgrass are classified as "No Take," meaning they may not be disturbed, cut, or harvested. However, although these two genera may occur in the study area, they are unlikely to be present in the project area, based on lack of suitable habitat and recorded presence. Additionally, there is no kelp forest within the project area. Therefore, there would be no direct impacts to these marine vegetation communities.

The Proposed Action would directly impact a small amount of common marine vegetation living directly on the surface of Pier structures being repaired or replaced. Marine vegetation growing directly on Pier surfaces includes sea grapes (*Botryocladia* sp.), Turkish towel (*Chondracanthus* sp.), and sea lettuce (*Ulva* sp.). These common species would be directly impacted by the Proposed Action through the removal of Pier structures. However, there would not be a net loss of marine vegetation habitat, given that all surfaces to be removed are to be replaced with similar structures, and the algae from the surrounding marine communities would likely recolonize the new structures in a similar fashion to their present distribution on the Pier. Therefore, direct impacts to common marine vegetation would be minimal and temporary. In addition, there would be no impacts to benthic (bottom dwelling) algae, given their lack of presence beyond the photic zone.

**Table 5: Special-Status Birds with Potential to Occur in the Study Area[1]**

| Grouping | Common Name | Scientific Name | Federal/State Status[2,3] |
|---|---|---|---|
| Nearshore seabirds | Brandt's cormorant | *Phalacrocorax penicillatus* | MBTA |
| | California brown pelican | *Pelecanus occidentalis californicus* | FD, SFP, MBTA |
| | California gull | *Larus californicus* | MBTA |
| | Double-crested cormorant | *Phalacrocorax auritus* | MBTA |
| | Heermann's gull | *Larus heermanni* | MBTA |
| | Mew gull | *Larus canus* | MBTA |
| | Pelagic cormorant | *Phalacrocorax pelagicus* | MBTA |
| | Western gull | *Larus occidentalis* | MBTA |
| Sea ducks | Red-breasted merganser | *Mergus serrator* | MBTA |
| | Surf scoter | *Melanitta perspicillata* | MBTA |
| Shorebirds and wading birds | Black oystercatcher | *Haematopus bachmani* | MBTA |
| | Black turnstone | *Arenaria melanocephala* | MBTA |
| | Great blue heron | *Ardea herodias* | MBTA |
| | Great egret | *Ardea alba* | MBTA |
| | Red phalarope | *Phalaropus fulicarius* | MBTA |
| | Ruddy turnstone | *Arenaria interpres* | MBTA |
| | Snowy egret | *Egretta thula* | MBTA |
| | Surfbird | *Aphriza virgata* | MBTA |
| | Whimbrel | *Numenius phaeopus* | MBTA |
| Loons and grebes | Black-necked (eared) grebe | *Podiceps nigricollis* | MBTA |
| | Clark's grebe | *Aechmophorus clarkii* | MBTA |
| | Common loon | *Gavia immer* | CSC, MBTA |
| | Horned grebe | *Podiceps auritus* | MBTA |
| | Pacific loon | *Gavia pacifica* | MBTA |
| | Pied-billed grebe | *Podilymbus podiceps* | MBTA |
| | Western grebe | *Aechmophorus occidentalis* | MBTA |

Notes:

[1] Species list determined by field observations (Phillips and Harvey, 2004; Hoover and Harvey, 2008; Harvey and Hoover, 2009) and reports submitted to eBird (http://ebird.org "Monterey Coast Guard pier/Cannery Row seawatch" database accessed January 2013).

[2] There is no critical habitat in the study area.

[3] Status:
*FD – Federally Delisted*
*SFP – California Fully Protected Species*
*CSC – California Species of Special Concern*
*MBTA – species protected under the Migratory Bird Treaty Act*

Indirect impacts to special-status and common marine vegetation would be minor. Sedimentation from removing and replacing the Pier would be minimal; therefore, no indirect impacts from sedimentation are anticipated. Any impacts to drifting giant kelp would be temporary, because these plants are capable of moving with currents or wave action away from the project area during project construction (Herrlinger, 2001).

Proposed improvements that would occur above the water surface, including the waterline replacement and ancillary deck repairs, would not impact marine vegetation, because these activities are not expected to result in direct disturbance to the aquatic environment or indirect sedimentation impacts.

Therefore, the Proposed Action is not expected to result in direct or indirect impacts to populations of special-status marine vegetation, such as surf grass, eelgrass, and kelp forest; drifting giant kelp may be subject to temporary and minor indirect sedimentation impacts. Direct and indirect impacts to common marine vegetation would be minimal and temporary.

**Benthic Invertebrates**

Direct impacts to benthic communities would be extremely limited. No modification to the sea floor would occur. The replacement of piles and other submerged structures would result in the removal of any benthic invertebrates living on them. Following their replacement, these piles would be colonized by benthic invertebrates, making any impact temporary in nature. Black abalone are not expected to be present on the piles or submerged structures, because their habitat preference is for rocky areas with complex surfaces, such as crevices and overhangs (NOAA, 2008a); therefore, this species would not be impacted by the Proposed Action.

All construction activities would take place in areas of rocky substrate with low densities of fine sediment. As a result, construction activities are not expected to generate levels of turbidity that would be harmful to benthic invertebrates. Standard BMPs would be implemented to prevent the release of hazardous materials that could impact the health of benthic invertebrates. Additionally, proposed improvements that would occur above the water surface, including the waterline replacement and ancillary deck repairs, would not impact benthic invertebrates, because these activities are not expected to result in disturbance of potential habitat for benthic invertebrates. Therefore, potential impacts to benthic invertebrates would be minimal.

Pursuant to Section 7 of the ESA, the USCG prepared a biological assessment to document that the Proposed Action would have no effect on black abalone or designated critical habitat for this species. The biological assessment was submitted to the NMFS in April 2013. The NMFS concurred with this determination in a letter dated November 4, 2013.

**Sea Turtles**

Leatherbacks within Monterey Bay are regularly exposed to boat traffic and are accustomed to the level of activity associated with an active harbor. Like marine mammals, leatherback behavior may be temporarily altered as a result of project construction, causing short-term reactions such as fleeing or cessation of feeding. Biological monitoring has been conducted for several construction projects at the Pier, which involved construction activities similar to the

Proposed Action. Although leatherbacks were not observed during these projects, disturbance to marine mammals was minor and did not result in long-term or permanent changes in behavior (Phillips and Harvey, 2004; Hoover and Harvey, 2008; Harvey and Hoover, 2009).

Vibratory pile removal/replacement and impact pile driving would create underwater and airborne sound in the study area. Leatherbacks spend most of their time underwater and surface occasionally to breathe, and therefore could be exposed to these sounds. There is little information regarding sea turtle responses to sound. Acoustic thresholds have not been determined for sea turtles, but hearing sensitivity is thought to be limited to low-frequency bandwidths. Noise produced during pile extraction and driving occurs within frequency ranges that are higher than the estimated hearing range of sea turtles; therefore, these sounds are not expected to impact sea turtle hearing.

Leatherbacks may temporarily exit the study area during construction activities for the Proposed Action; however, given the wide availability of higher-quality habitat in the vicinity, this temporary impact is considered negligible. Long-term, permanent impacts to leatherback sea turtles are not expected.

Proposed improvements that would occur above the water surface, including the waterline replacement and ancillary deck repairs, would not impact sea turtles, because these activities are not expected to result in disturbance to the aquatic environment.

Pursuant to Section 7 of the ESA, the USCG prepared a biological assessment to document that the Proposed Action would have no effect on the leatherback turtle, or designated critical habitat for this species. The biological assessment was submitted to the NMFS in April 2013. The NMFS concurred with this determination in a letter dated November 4, 2013.

**Special-Status Fish**

Potential impacts to special-status fish species could occur through the underwater sound produced during pile extraction and driving; temporary water quality degradation; or the alteration or removal of habitat. Proposed improvements that would occur above the water surface, including the waterline replacement and ancillary deck repairs, would not impact special-status species fish, because these activities are not expected to result in underwater sound above ambient conditions, water quality degradation, or alteration or removal of habitat.

Pile extraction and driving would generate underwater sound that has potential to disturb or harm fish. An assessment of potential sound levels that could result from implementation of the Proposed Action was conducted (Illingworth and Rodkin, 2012). The sound assessment determined that underwater sound would exceed levels that have the potential to disturb or temporarily decrease fitness of fish with a prolonged exposure to the underwater sound. Such effects would potentially impact fish over areas of up to 328 feet from pile driving (Illingworth and Rodkin, 2012). However, the assessment determined that, with the use of bubble curtains to reduce noise impacts, underwater sound as a result of the Proposed Action would not exceed levels that would cause injury to fish. To reduce the potential impacts of underwater sound, the Measures BIO-1 and BIO-2 would be implemented:

**BIO-1: Pile Driving Operational Measures.** A "soft-start" technique will be used to allow fish and marine mammals to vacate the area before the pile driver reaches full power. For vibratory hammers, the contractor will initiate the driving for 15 seconds at reduced energy, followed by a 1-minute waiting period when there has been downtime of 30 minutes or more. This procedure shall be repeated two additional times before continuous driving is started. This procedure would also apply to vibratory pile extraction. For impact driving, an initial set of three strikes would be made by the hammer at 40 percent energy, followed by a 1-minute waiting period, then two subsequent three-strike sets before initiating continuous driving.

**BIO-2: Acoustic Monitoring.** Acoustic and marine mammal monitoring plans would be developed and implemented in consultation with, and approval from, NMFS. The plans would include specific measures to minimize exposure of marine mammals and fish to high sound levels. Avoidance and minimization measures that would be implemented include the following:

- Underwater sound measurements will be taken at a reference location and at additional locations to determine actual underwater sound levels. Measurements will be taken at two depths: one in mid-water column; and one near the bottom, but at least 3 feet above the bottom.

- Construction monitoring will be conducted by qualified observers familiar with marine mammal species and their behavior.

- An "exclusion zone," defined as the area over which underwater sound levels may exceed Level A harassment thresholds for marine mammals, will be established during pile replacement work. Hydroacoustic monitoring will be conducted during impact pile driving to verify and refine the limits of the exclusion zone, and to ensure that marine mammals are not harmed by pile extraction and driving activities. Airborne noise monitoring for marine mammals will also be conducted. The exclusion zone will be monitored for 15 minutes prior to any pile extraction and driving activities to ensure that the area is clear of any marine mammals. Pile extraction or driving will not commence until marine mammals have not been sighted within the exclusion zone for a 15-minute period. If a marine mammal enters the exclusion zone during pile replacement work, activity will continue, and the behavior of the animal will be monitored and documented. If the animal appears disturbed by the pile replacement activity, work will stop until the animal leaves the exclusion zone.

- Regular counts and behavioral observations will be made of marine mammals hauled-out and within the water in the vicinity of project activities.

- A monitoring report that summarizes the monitoring results, construction activities, and environmental conditions will be submitted to NMFS and USFWS.

The removal and replacement of submerged structures may result in a temporary reduction of habitat for special-status fish in the project area through the removal of benthic invertebrates or marine vegetation. Such a reduction would also occur to designated critical habitat for southern DPS green sturgeon, which is present in the project area. Given the wide availability of higher-quality habitat in the vicinity, this temporary impact is considered negligible. Further, as described above under Benthic Invertebrates, the project would not result in harmful levels of turbidity, and BMPs would be implemented to minimize the risk of spills or leaks of hazardous materials.

Therefore, the project would result in temporary impacts to special-status species fish and associated designated critical habitat. No permanent adverse impacts would result from the Proposed Action.

Pursuant to Section 7 of the ESA, the USCG prepared a biological assessment to document that the Proposed Action is not likely to adversely affect federally listed fish species; and may affect—but is not likely to affect—critical habitat for federally listed fish species. The biological assessment was submitted to the NMFS in April 2013. The NMFS concurred with this determination in a letter dated November 4, 2013.

**Essential Fish Habitat**

Potential impacts to EFH include disturbance due to underwater sound, temporary water quality degradation, and the alteration and removal of habitat.

As discussed above, the underwater sound produced during pile replacement work may cause disturbance to fish in the study area, which may reduce feeding and cause a temporary reduction in the productivity of EFH. This disturbance would be short term in nature (10 days or less of pile replacement work), and impacts to EFH would be minimal. Further, as described above in regard to impacts to Benthic Invertebrates, the project would not result in harmful levels of turbidity, and BMPs would be implemented to minimize the risk of spills or leaks of hazardous materials.

The removal and replacement of submerged structures may result in a temporary reduction of EFH habitat through the removal of benthic invertebrates or marine vegetation. Given the wide availability of high-quality EFH in the vicinity of the project area, this temporary impact is considered negligible.

Therefore, with implementation of the above mitigation measures, the Proposed Action would result in temporary minor adverse impacts to EFH.

Pursuant to Section 7 of the ESA, the USCG prepared a biological assessment to document that the Proposed Action may affect—but is not likely to adversely affect—EFH. The biological assessment was submitted to the NMFS in April 2013. In a letter dated November 4, 2013, the NMFS determined that the Proposed Action would adversely affect EFH; however, in recognition of the measures proposed by the USCG to avoid and minimize adverse effects, the NMFS had no further EFH conservation recommendations.

**Marine Mammals**

The study area is frequented by California sea lions and southern sea otters. Pacific harbor seals, harbor porpoises, and gray whales may also be present in low numbers. These special-status species may be harassed as a result of project construction, causing behavioral changes such as fleeing, temporary cessation of feeding, or interruption of social behavior. Harassment may result from airborne noise, underwater noise, or visual disturbances during construction. Hauled-out California sea lions may startle and flush into the water, disturbing sleep or rest. Marine mammals that frequent the Pier, Jetty, and Monterey Harbor are subject to regular disturbance from boat activity, USCG operations, foot traffic, and noise from machinery such as generators (Phillips and Harvey, 2004; Hoover and Harvey, 2008; Harvey and Hoover, 2009). As a result, marine mammals that frequent the project area are habituated to human disturbance.

Over the past decade, multiple construction and maintenance projects have been conducted on the Pier and adjoining Jetty. Marine mammal monitoring was conducted by the USCG during the installation of the Hawksbill floating dock in June and July 2004; during replacement of an Aid to Navigation device in August 2008; and during repairs to small boat and patrol boat floating docks between November 2008 and February 2009. These projects involved construction activities similar to the Proposed Action, such as repairs to underwater cement pilings, drilling, welding, and use of heavy machinery. Disturbances to marine mammals were minor and did not cause long-term or permanent changes in behavior (Phillips and Harvey, 2004; Hoover and Harvey, 2008; Harvey and Hoover, 2009). For example, some California sea lions and southern sea otters were startled and flushed from the immediate area of disturbance, but shortly resumed normal activity. No marine mammals were observed in visible distress or injured as a result of these previous projects.

Pile extraction and driving associated with the Proposed Action would generate underwater and airborne sound that has potential to harass marine mammals. The sound assessment conducted for the Proposed Action determined that marine mammals present in the Monterey Harbor and nearby waters would be exposed to sound levels above NMFS established thresholds for Level B harassment, which includes non-injury behavioral effects. Vibratory pile extraction and driving produces overall lower sound levels than impact pile driving, but would still exceed Level B harassment thresholds. Level A harassment, which includes potential injury, is not expected to occur as a result of the Proposed Action.

To prevent Level A harassment from occurring, the mitigation measures discussed above in relation to special-status fish would be implemented. In addition, to reduce the potential for effects to marine mammals, Measure BIO-3 will be implemented.

> **BIO-3: Impact Pile Driving Seasonal Restriction.** In order to reduce the potential for effects to marine mammals, impact pile driving will occur during the summer months (June 15 to October 15), if feasible.

In addition to incidental harassment resulting from construction activity, directed actions to provide incentive for animals to leave the work zone may be required. California sea lions frequently haul-out beneath the Pier on the Jetty armor, where construction would occur as a

result of the Proposed Action. Interactions of construction workers with these animals could result in injury to both workers and/or California sea lions. It may be necessary to deter, using non-lethal methods, hauled-out animals to safely gain access to the work site. Such actions are allowed under Section 109 of the MMPA, which permits federal, state, and local officials to take marine mammals in the course of official duties. Such duties include the protection or welfare of a marine mammal, protection of public health and welfare, and non-lethal removal of nuisance animals. If non-lethal deterrence of California sea lions is needed to safely access a work site, Measure BIO-4 would be implemented:

> **BIO 4: Physical Deterrence.** If non-lethal deterrence of California sea lions is needed to safely access a work site, the marine mammal monitor will oversee any non-lethal deterrence actions. Non-lethal deterrence methods will be physical in nature and may include the use of a "super soaker" type water gun to spray individual California sea lions on the rump or chest. Non-lethal deterrence methods will not include auditory devices. Should any serious injury or mortality result during the course of the proposed activity, the USCG will suspend operations and will immediately contact NMFS.

With implementation of Measures BIO-1 through BIO-4, short-term impacts to marine mammals would not be significant. No long-term impacts are expected.

To comply with the MMPA, the USCG has submitted to the NMFS an incidental harassment authorization (IHA) application to authorize the potential Level B harassment to the following marine mammal species in Monterey Bay: California sea lion, Pacific harbor seal, harbor porpoise, gray whales, and killer whale. Killer whale is conservatively included in the IHA application even though occurrences in Monterey Harbor are extremely rare, and this species is unlikely to occur in the study area. Southern sea otter is under the jurisdiction of the USFWS, and the USCG has also submitted an IHA request to USFWS to authorize the potential Level B harassment of this species. The IHA includes an acoustic monitoring plan and marine mammal monitoring plan that would be implemented to avoid Level A harassment of marine mammals.

Pursuant to Section 7 of the ESA, the USCG prepared a biological assessment to document that the Proposed Action may adversely affect the southern sea otter, because exposure to intense underwater and airborne noise may cause temporary and adverse behavior effects to the species. The biological assessment was submitted to the USFWS in April 2013.

**Birds**

Federally listed bird species would not be impacted by implementation of the Proposed Action, because none have the potential to occur in the study area.

Other protected birds that could occur in the immediate project area are regularly exposed to human presence, boat traffic, and other common disturbances at the Pier and within Monterey Harbor, and are not easily deterred from the Jetty. Birds within the project area are accustomed to airborne and underwater noise from California sea lion barks, bird calls, boat and other vehicle traffic, and occasional aircraft.

Bird monitoring was conducted by the USCG during implementation of several projects over the past decade, as previously described. Disturbance to birds during these construction activities was minor and did not cause long-term or permanent changes in behavior (Phillips and Harvey, 2004; Hoover and Harvey, 2008; Harvey and Hoover, 2009). Some birds flushed or dispersed from the immediate area of activity, and relocated to a more distant portion of the Jetty. No birds were observed in visible distress, and no injuries occurred during the previous projects.

Birds may be exposed to underwater and airborne sound created by vibratory pile removal/ replacement and impact pile driving. Birds that forage by going under the water surface, such as by plunge-diving, could be exposed to underwater sounds. Underwater impulses from the impact hammer are broadband, and carry most of their energy in the lower frequencies. Hearing range and sensitivity has been measured for many land birds, but little is known of hearing in the coastal and marine species that could occur in the study area. The few studies of seabird hearing and sensitivity are consistent with what is known about bird hearing in general. Impact hammer impulses are within the hearing range of most birds and can produce a shock wave. Long-term exposure to high sound-pressure levels from impact pile driving can result in physical injury, or (temporarily or permanently) affect hearing sensitivity. Some birds may exhibit an annoyance reaction and flee from the impact pile driving location; however, others may continue to forage close to the construction area and be exposed to associated noise. Behavioral responses and displacement from the study area are expected to be temporary for the duration of the pile replacement, and minimal given the current noise levels at the harbor. As previously stated, sound produced from a vibratory hammer is similar in frequency range to that of an impact hammer, except the source levels are much lower, and it is unlikely that birds would be exposed to injurious levels of sound from the vibratory hammer. Avoidance of the area would be temporary, and is expected to occur only while the vibratory hammer is in use.

Birds may temporarily relocate to alternate roosting or foraging areas during construction; however, such impacts would be short-term and minor. Pile extraction and driving would create greater noise levels than other construction activities, but would occur over a relatively brief duration (a maximum of 10 days at a rate of approximately two piles per day), and would be conducted with a vibratory hammer to the extent feasible. The use of deterrence methods such as a "soft-start" before impact pile driving will allow for birds to flush before hammering begins, further minimizing potential impacts. Use of a bubble curtain will also decrease underwater noise from impact pile driving. Noise and construction activity associated with other improvements, including the waterline replacement and ancillary deck repairs, would be comparable to ambient conditions, and would be not be expected to measurably alter bird behavior. Although project construction may have minor and temporary adverse impacts on birds, it is not expected to result in "take" of any species protected under the MBTA.

Long-term, permanent impacts to federally listed and other protected birds are not expected.

**No Action Alternative**

The No Action Alternative would not result in impacts to any special-status species or sensitive habitats because no construction activities would take place.

## 3.2 Cultural Resources

The term "cultural resources" is used to describe archaeological sites, illustrating evidence of past human use of the landscape; the built environment, represented by structures such as dams, roadways, and buildings; and traditional resources, such as sacred sites and traditional cultural properties. The NHPA of 1966 is the primary federal legislation that outlines the federal government's responsibility to consider cultural resources. Other applicable cultural resources laws and regulations that could apply include the Archaeological Resources Protection Act, and the Abandoned Shipwreck Act.

Section 110 of the NHPA sets out the broad historic preservation responsibilities of federal agencies and is intended to ensure that historic preservation is fully integrated into the ongoing programs of all federal agencies. Section 110 states federal agency responsibility for identifying and protecting historic properties, and avoiding unnecessary damage to them. Section 110 also charges each federal agency with the affirmative responsibility for considering projects and programs that further the purposes of the NHPA, and it declares that the costs of preservation activities are eligible project costs in all undertakings conducted or assisted by a federal agency.

Section 106 of the NHPA requires the federal government to take into consideration the effects of an undertaking on historic properties. Historic properties are those cultural resources listed or eligible to be listed on the National Register of Historic Places (NRHP). The criteria used to determine whether a cultural resource is a historic property, and therefore eligible for inclusion on the NRHP, are defined in 36 CFR, Part 60.

The Section 106 process is outlined in the federal regulations at 36 CFR, Part 800. These regulations describe the criteria that a federal agency uses to evaluate cultural resources. In summary, the USCG must first determine if the action is the type of action that has the potential to affect historic properties. If so, the USCG must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Officer (SHPO) and federally recognized tribes with historic ties to the APE.

### 3.2.1 Affected Environment

The APE defined for the Proposed Action is confined to the Pier, the breakwater upon which the Pier sits, and the underlying marine sediments.

Human settlement of the San Francisco Bay/Central Coast region, which includes the area around Monterey Bay, is thought to have begun sometime during the early Holocene. By circa 1500 B.C., Utian-speaking people had settled the area around the southern end of San Francisco Bay, from which they expanded southward to Monterey Bay. Moratto states that these peoples were ancestral Costanoans (1984:279). By circa 500 B.C., Costanoans (also known as Ohlone) occupied essentially the same territory that they would until they were displaced by Euro-Americans.

The California coastline, including Monterey Bay, was familiar to navigators by the start of the seventeenth century (Donley et al., 1979). In 1792, the Spanish built a rudimentary fort, El Castillo, on the top of a small hill overlooking the anchorage of Monterey Bay. Jurisdiction over Alta California (as opposed to Baja California) was established by the Mexican Empire in April of 1822. Within Monterey, El Castillo was appropriated by the Mexican authorities for its continued use as a fortification. Over the next 25 years, Monterey served as the political, social, and economic capital of Alta California. Settlement by United States citizens greatly increased after discovery of gold in 1848. California became part of the United States as a consequence of the Mexican War of 1846-1847. The territory was formally ceded in the treaty of Guadalupe Hidalgo in 1848, and was admitted as a state in 1850 (Bethel, 1969).

Congress appropriated funds in 1929 for the establishment of the breakwater upon which the current USCG facility is located. Constructed by the Army Corps of Engineers, the breakwater was completed in 1934 (City of Monterey, 2012a; City of Monterey, 2012b). In 1934, the breakwater consisted of riprap extending from the shoreline just north of present-day Fisherman's Shoreline Park. It was originally constructed of uncoursed dry-laid rock materials. According to the 1939 Master Plan for the City of Monterey, the breakwater served as "a division line between the heavy industry areas and an area which should be essentially recreational" (City of Monterey, 1939). Based on a 1954 historic aerial image, by the early 1950s, the materials, form, and visual appearance of the breakwater had been dramatically altered by the construction of a wharf immediately east of the breakwater (City of Monterey, 2012b). This wharf area is currently comprised of the western and eastern Pier areas. Overall, these changes transformed the breakwater into a pier, which facilitated the structure's use as a composite pleasure, fishing, and working pier.

Around the early 1960s, a historic photograph depicts an improved paved-access roadway running along the northern portion of the breakwater (Calisphere, c.1960). Improvements continued throughout the 1960s, and included the installation of a landfilled parcel west of the breakwater's portal in approximately 1968 (AerialArchives.com, 1968). As indicated in the 2010 City of Monterey Waterfront Master Plan, a landfilled parcel at the western end of the breakwater was developed for parking, recreational, and commercial activities (City of Monterey, 2010). The large rectangular parking lot is paved and provides ramp access to launch boats.

A number of major alterations were made to the breakwater within the last 30 years. In 1987, the Breakwater Cove Marina was constructed (Colwell, 2009). This improvement installed slips for small watercraft at the western edge of the breakwater and in the adjacent harbor area. In 1995, 47 of the 64 original timber pilings were replaced with steel pilings, while the remaining timbers were encapsulated in PVC to deter erosion. In the early 2000s, the breakwater was further altered with the installation of floating docks at various points along the southern portion of the structure (known as the harbor-side portion), including the Station Finger Floating Docks and Hawksbill Floating Dock. Non–historic-period chain-link fencing has been installed to secure the wharf's western and eastern Pier to limit public use of the USCG facilities. Additionally, as needed, deck materials for the western and eastern Pier have been replaced and repaired, and a gangway and floating dock were installed to access the Hawksbill

Floating Dock within the past 15 years. Over time, these changes have affected the overall form, visual appearance, materials, spatial relationship, and arrangement of the structure.

A records search of the California Historical Resources Information System was conducted by the Northwest Information Center. The record search revealed that there are no recorded, NRHP-listed, eligible to be listed, or other cultural resources of significance within the APE. Two recorded sites are within 1/8 mile of the project area. Both of these resources, CA-MNT-101 and -102, consist of prehistoric Native American sites situated along the nearby coastline. CA-MNT-101 also contains the remnants of the Spanish fortification "*El Castillo*" within its boundaries.

A review of the shipwreck databases maintained by the California State Lands Commission and the Monterey Bay National Marine Sanctuary revealed the presence of numerous shipwrecks in the vicinity of the Monterey Peninsula, including several in the general vicinity of the Jetty (California State Lands Commission, 2012; NOAA, 2010); however, none occur within the APE. The closest shipwreck to the APE is the Gipsy, which ran aground near Macabee Beach on September 29, 1905; this location is approximately 600 feet southwest of the APE.

URS, on behalf of the USCG, contacted the Native American Heritage Commission (NAHC) on August 23, 2012, to request a review of its Sacred Land File and a list of Native American Tribal representatives who may have interest in the area. The NAHC responded in a letter dated August 28, 2012, that no Native American cultural resources were known in the project area, and provided a list of contacts. The USCG initiated contact with Native American Tribal Representatives on October 4, 2012, as part of the scoping process. Scoping letters requesting input and comment were sent to the Amah Mutsun Tribal Band, Coastanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Ohlone/Coastanoan-Esselen Nation, and the Trina Marine Ruaro Family. No responses were received. One letter was received during the public comment period for the Draft EA, as discussed in Section 3.2.2 below.

Paleontological resources (or fossils, which are the remains of ancient plants and animals) and trace fossils (such as burrows or tracks) can provide scientifically significant information on the history of life on earth. According to the Draft Environmental Impact Report completed for the Monterey County General Plan (County of Monterey, 2008), most of the fossils found in the County are marine life forms that represent micro-organisms. The project area is situated primarily upon geological formations classified by the United States Geological Survey as granitic rock with Pleistocene age (roughly 18,000 years old) marine terrace deposits. Monterey Bay's granitic formation is plutonic (intrusive), the result of the slow cooling of a body of melted rock (magma) deep under the Earth's surface. Such processes make this formation unsuitable for containing paleontological specimens (United States Geological Survey, 2006).

### 3.2.2 Environmental Consequences

**Proposed Action**

No archaeological resources, including shipwrecks, or paleontological resources, have been identified in the APE. Therefore, no known archaeological or paleontological resources would be affected with project implementation. Furthermore, because the project involves replacing

existing piles entirely within their current footprint, including through the existing rockwork of the Jetty, impacts resulting from the inadvertent discovery of archaeological or paleontological resources would be precluded. Therefore, the Proposed Action is not expected to impact archaeological and paleontological resources.

The APE contains one built environment property—the Pier—which also includes the breakwater it sits on. For purposes of this undertaking only, the property is assumed eligible for inclusion on the NRHP, and is therefore considered a historic property for purposes of Section 106 of the NHPA and NEPA.

Although the breakwater was first constructed in 1934 (and the Pier portion added in the 1950s), there have also been several major alterations and changes completed in the past 45 years, outside of the historic-period. For example, as noted earlier, a landfilled parcel was installed in approximately 1968 west of the breakwater's portal. By 2004, the Hawksbill Floating Dock and Station Finger Floating Docks were added to the property, and numerous original materials have been replaced over time in order to maintain the breakwater as a functioning structure. However, despite these changes, the breakwater does maintain its historic integrity aspects of location, design, setting, feeling, and association. The breakwater conveys a sense of location, because it is still located in the place where it was originally built in 1934. Further, the breakwater still reflects its original and historic intent of providing a safe harbor within Monterey Bay, despite the several additions that have occurred to the structure since its construction. The major elements, the 1934 breakwater and 1950s Pier portions, have not been substantially altered since they were constructed, and still retain their original design, arrangement, and purpose/use, which convey the property's setting, feeling, and association.

The proposed improvements would not cause substantial changes to the visual narrative or extant original or historic materials, design, massing, overall shape, and form of the property. For example, the replacement of the current wooden piles with metal piles would not drastically affect the visual characteristics of the property, because they are currently covered in PVC materials. The installation of an additional 17 steel pipe piles, which would be located in the same footprint of the existing timber piles, would not substantially disrupt the visual characteristics of the property. The new piles would only have a 2-inch greater diameter than the existing ones, and would retain the overall rhythm, datum, spatial relationship, shape, form, and massing of the structure.

Additional repairs, such as the replacement of materials and hardware removed to conduct the pile replacement and the repairs to the waterline, would be completed in-kind and would therefore not result in an adverse effect to the historic architectural resource. Ancillary repairs, including the restoration of bearings at pedestals and sea walls with non-shrink grout pads, replacement of underwater pile struts, removal of abandoned mooring hardware, replacement of missing sections of curb, and replacement of isolated deck planks that have deteriorated, would not affect the overall shape, massing, form, and visual characteristics important to the structure's significance; therefore, they would have no adverse effect to the property. In addition, materials not replaced in-kind would be clearly differentiated from the historic materials so that the character-defining features are not radically changed, obscured, damaged, or destroyed, and a false sense of history is not created.

The Proposed Action would also involve repairs to the non–historic-period floating docks, including repairing tie rods, repairing concrete spall, relocating and securing gangway wear plate(s), replacing cleats, replacing missing rubstrips, and replacing underwater pile struts. These changes would occur on non-historic, small-scale, or non-visible elements that do not disrupt or diminish the significance of the property, as a whole. For example, since the floating docks were constructed outside of the history-period, repairs would not result in an adverse effect to the property, because the massing, overall arrangement, and configuration of the structure remains intact.

Furthermore, the Proposed Action would not result in any of the following: the removal of the property from its current location; change the character of the property's use or the physical features within the property's setting that contribute to the historic significance; or the introduction of visual, atmospheric, or audible elements that diminish the integrity of the historic significance of the property. The changes to the property would be considered minor, small actions that would not cause the property to no longer convey its importance.

In summary, for purposes of this undertaking, the property is assumed eligible for inclusion on the NRHP, and considered a historic property for purposes of Section 106 of the NHPA; however, the Proposed Action would not adversely affect the property.

The Ohlone/Coastanoan-Esselen Nation submitted a comment letter on the Draft EA expressing concern for the potential disturbance of ancestral heritage sites (Appendix B). As documented above, there are no recorded archaeological resources within the APE. Furthermore, because the Proposed Action involves replacing existing piles entirely within their current footprint, disturbance to unknown archaeological sites is not anticipated. Because the Proposed Action would not be constructed within any known archaeological sites and because piles would be replaced within their current footprint (i.e., no new disturbance of sediments), no additional archaeological investigations are required (e.g., surveys, testing, data recovery). If, in the future, the project changes and archaeological investigations are required, the USCG will contact the local Native American community, as required under Section 106 of the National Historic Preservation Act, and will evaluate compliance with all applicable laws.

The USCG concluded that this undertaking would have no adverse effect on cultural resources. The USCG will be notifying the SHPO and applicable Native American Tribes of its determination.

**No Action Alternative**

Under the No Action Alternative, the improvements would not be constructed. The USCG would conduct maintenance and repair of the Pier, as needed. These activities would not be expected to impact known cultural resources. The USCG would conduct environmental review and consultation in compliance with Section 106 of the NHPA prior to additional maintenance and repair activities of the Pier, as appropriate.

## 3.3 Geology and Soils

### 3.3.1 Affected Environment

The City of Monterey is underlain by a major geologic feature, the Salinian Block, which in turn is underlain by granitic basement rock. The Salinian Block is bounded on the northeast by the San Andreas Fault, and on the southwest by the Palo Colorado-San Gregorio Fault. The block is approximately 50 miles wide and 300 miles long. The types of soils and geologic formations that underlie the City are varied, ranging from unconsolidated dune sands along Monterey Bay to exposed granite and sandstone. There are no known active faults—faults on which movement has occurred within the last 11,000 years—near the project area. The most significant fault in the region is the San Andreas Fault, located in eastern Monterey County (EMC, 2004).

The project area has been developed by artificial filling of the waterfront, and the construction of seawalls to enable the construction of piers, buildings, and roadways. The project area is underlain by relatively soft sand and mud deposits. The breakwater contains large-diameter rock rip-rap revetment that extends down to where the taper of the Jetty meets the sea floor. The breakwater limits erosion of areas to the south by attenuating wave, tide, current, and ship wake effects; because the Pier is on the southern side of the breakwater, it is protected from these forces.

### 3.3.2 Environmental Consequences

**Proposed Action**

The Proposed Action would not increase existing risks caused by seismic action within the project area. Improving the structural integrity of the Pier would help to minimize the damage that could be done to the Pier during a seismic event, and therefore result in a long-term beneficial impact. Adverse impacts to sediments would be limited to temporary disturbance during pile driving activities. These impacts would be minor and localized, and are not expected to affect the slope and stability of the Jetty and underlying sediments.

**No Action Alternative**

Under the No Action Alternative, the USCG would continue to conduct routine maintenance and minor repairs to the Pier; however, the piles that support the Pier would not be replaced. The structural integrity of the Pier would continue to deteriorate, increasing the risk of damage during a seismic event, which in turn could compromise the USCG's ability to fulfill its missions, as well as increased risk to USCG and NOAA personnel who use the Pier. Therefore, the No Action Alternative may result in indirect adverse impacts with regard to increased risk to people or structures from seismic activity. The No Action Alternative would not impact soils, because no construction activities would occur.

## 3.4 Water Resources

Monterey Bay is designated a National Marine Sanctuary. The National Marine Sanctuaries Act requires federal agencies whose actions are "likely to destroy, cause the loss of, or injure a sanctuary resource," to consult with NOAA before taking the action. A permit is required to conduct an activity within a sanctuary that would otherwise be prohibited by sanctuary regulations. The National Marine Sanctuary program regulations are contained in 15 CFR Part 922; Subpart M includes regulations specific to the Monterey Bay National Marine Sanctuary.

The CWA includes a variety of regulatory tools to protect surface water quality in the United States, such as permits under Sections 404 and 401 of the CWA. Section 404 establishes a program to regulate the discharge of dredge and fill material into waters of the United States, including wetlands. Section 401 requires that Section 404 permit applicants obtain a state water quality certification to ensure that the project would comply with state water quality standards. In California, the Section 401 permit program has been delegated to the California Regional Water Quality Control Board. Section 303 of the CWA addresses water quality standards and implementation plans. Under Section 303(d) of the CWA, states are required to develop lists of impaired waters. These impaired waters do not meet water quality standards that states have set for them, even after point sources of pollution have installed the minimum required levels of pollution control technology.

The essential water quality requirements for Monterey Bay are established by the Water Quality Control Plan for the Central Coast Basin (CCRWQCB, 2011). An additional level of regulatory review and oversight is provided by the Coastal Zone Management Act and California Coastal Act. Both of these laws, and the associated federal and state regulatory programs, include policy guidance that polluted runoff shall not degrade the quality of the coastal environment and adversely affect important Coastal Zone resources and uses. Requirements under the Coastal Zone Management Act are further discussed in Section 3.8.

Executive Order 11988 requires that federal agency construction, permitting, or funding of a project avoid incompatible floodplain development, be consistent with the standards and criteria of the National Flood Insurance Program, and restore and preserve natural and beneficial floodplain values.

### 3.4.1 Affected Environment

The Monterey Bay National Marine Sanctuary borders nearly 300 miles of California's coastline and receives runoff from watersheds that cover approximately 7,000 square miles, and supports a variety of land uses. Development and other land-use changes in the watersheds have changed the runoff patterns and altered the quality of the runoff that reaches the Bay. The Sanctuary boundary is on the northern side of the jetty. Because the project site is not within the Sanctuary, National Marine Sanctuary permitting requirements do not apply.

The project area is within the Marina/Pacific Grove watershed, which encompasses the cities on the Monterey Peninsula from Marina to Pebble Beach. This watershed's land use is primarily

residential, commercial, and open space; and associated urban runoff is the main water quality problem in this watershed. Coastal areas of Monterey Bay, including harbors, lagoons, estuaries, and tributaries, are known to have elevated levels of nitrates, sediments, persistent pesticides, metals, bacteria, pathogens, detergents, and oils; other sources of marine water pollution include marinas and vessel pollution, spill incidents, and illegal dumping (NOAA, 2008b). Monterey Harbor is designated under CWA Section 303(d) as an impaired water body. The harbor is listed as impaired for metals, with the potential source identified as a railroad slag pile. The harbor is also listed as impaired for sediment toxicity, although the source(s) is/are unknown.

According to the April 2, 2009, *Flood Insurance Rate Map (FIRM) for Monterey County, California and Incorporated Areas*, Community Panel Number 060200 0307G, the eastern extent of the breakwater where the Pier is located is not mapped for flood hazards. However, the western end of the breakwater and adjacent parking lot are designated as Zone VE (EL 20). This designation applies to areas within the Coastal Flood Zone with velocity hazard (wave action) and a base flood elevation of 20 feet.

### 3.4.2 Environmental Consequences

**Proposed Action**

Construction activities could cause temporary suspension of sediment, resulting in short-term, localized increases in turbidity. Standard BMPs, including appropriate erosion control, spill prevention, and debris containment measures, would be employed during construction to minimize the potential for water quality impacts, and to prevent debris from entering the water. Because the project would not disturb more than 1 acre of land, it would not be subject to coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity (General Permit).

The Proposed Action would not involve excavation to depths that would affect aquifer systems or groundwater movement, and would not involve the construction of substantial new impervious surfaces that would impede groundwater recharge; therefore, the Proposed Action would not impact groundwater quantity or quality. Additionally, replacement of the Pier deck and ancillary repairs to the Pier deck and floating dock would not change developed surface features in a manner that would substantially alter drainage patterns, or increase the potential for flooding or flood-related damage. The proposed repairs would improve protection of the Pier from potential wave and flood damage, which would be a beneficial effect.

Therefore, temporary adverse impacts to water quality from construction would be minimal and localized, and the project would result in long-term beneficial effects to water resources.

**No Action Alternative**

Under the No Action Alternative, the USCG would continue to conduct routine maintenance and minor repairs to the Pier, which could result in minor adverse surface water quality impacts from debris entering the water or spills; the potential for such impacts would be minimized through the implementation of BMPs. Routine maintenance and minor repairs

would not be expected to impact to groundwater quantity or quality, drainage patterns, or floodplains. Under this alternative, the improvements would not be constructed and the Pier would be more susceptible to wave and flood damage, which in turn could compromise the USCG's ability to fulfill its missions if the Pier were damaged to the extent that it could not be used.

## 3.5 Hazardous Materials and Public Safety

The use, storage, transport, and disposal of hazardous and toxic substances are heavily regulated at the federal, state, and local levels. For the purpose of this analysis, the terms hazardous waste, hazardous materials, and toxic substances include those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act, or the Toxic Substances Control Act. In general, they include substances that, because of their quantity, concentration, or physical, chemical, or toxic characteristics, may present substantial danger to public health or welfare or the environment when released. Various laws, including the Superfund Amendment Reauthorization Act and Hazardous Material Transportation Act, govern day-to-day management of hazardous materials. These laws define the requirement for storage of hazardous materials, safe handling practices, and employee training.

### 3.5.1 Affected Environment

The USCG has environmental programs to address hazardous materials management, hazardous waste disposal, hazardous waste minimization, pollution prevention, and health and safety. USCG activities at the Station are conducted in accordance with a variety of applicable regulations, including United States Occupational Safety and Health Administration regulations, USCG instructions (principally M5100.47 and 6200 series), and local facility policies and procedures. These regulations and the implementing protocols, equipment, and training ensure that USCG operations and shore activities are conducted in a safe environment.

USCG activities at the Station use small quantities of hazardous materials and generate small amounts of waste associated with logistical support and maintenance operations, such as the application of paints and engine maintenance. No hazardous materials or wastes are currently stored, used, or generated on the Pier or floating docks.

The deterioration of bearing piles that has occurred over time compromises facilities needed by the USCG to fulfill its mission related to public safety.

### 3.5.2 Environmental Consequences

**Proposed Action**

As is typical with construction activities, minor, short-term impacts could occur during construction from the removal of existing materials and the storage and use of hazardous materials.

Removal of bearing piles could disturb sediment that may contain elevated levels of metals or other contaminants. The minor disruption to the sea floor from the removal of these piles would not introduce a substantial quantity of contaminants into the environment beyond baseline conditions.

Hazardous materials may be temporarily stored and used on site during construction, including petroleum products, solvents, and cleaners, primarily used for operation and maintenance of construction equipment. These materials would be stored properly within the staging area, in accordance with BMPs and applicable regulations, and the staging area would be secured from public access. Runoff controls would be implemented to prevent water quality impacts, and a spill plan would be developed to address any accidental spills. Any waste products resulting from construction operations would be stored, handled, and recycled or disposed of in accordance with federal, state, and local laws, including any wood that has been treated with potentially hazardous preservation chemicals.

During construction, the USCG would determine a temporary mooring location for the patrol boat (i.e., the Hawksbill) so that public safety and the Station's mission would not be compromised.

The proposed waterfront repairs would improve the structural integrity of the Pier. This would have a beneficial impact on the safety of USCG personnel and the general public, because the facilities would be functional and accessible over the long term, and the USCG's ability to fulfill its missions pertaining to public safety would not be compromised.

**No Action Alternative**

Under the No Action Alternative, the improvements would not be constructed and the Pier facilities would continue to deteriorate over time, which in turn could compromise the USCG's ability to fulfill its missions if structural failure of the Pier facilities occurred, and consequently adversely impact public safety. The No Action Alternative would not result in hazardous materials impacts, because no construction activities would occur.

## 3.6 Air Quality and Greenhouse Gases

The Station is located in the Monterey Bay Unified Air Pollution Control District (MBUAPCD), which has the primary responsibility for attainment and maintenance of District-wide air quality standards. These standards are subject to regulation and attainment goals of the United States and California Environmental Protection Agencies, pursuant to the federal and state Clean Air Acts.

Air quality programs based on ambient air quality standards typically address air pollutants produced in large quantities by widespread types of emission sources, and that are a public health concern because of their toxic properties. The U.S. Environmental Protection Agency (EPA) established national ambient air quality standards for several different pollutants, often referred to as criteria pollutants (i.e., ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, suspended particulate matter, and lead). Standards for suspended particulate matter have been

set for two size fractions: inhalable particulate matter ($PM_{10}$), and fine particulate matter ($PM_{2.5}$). National ambient air quality standards are based primarily on evidence of acute and chronic health effects, and apply to outdoor locations to which the general public has access. The status of areas with respect to these standards is generally categorized as attainment (better than national standard), maintenance (nonattainment areas that have been redesignated based on a maintenance plan), and nonattainment. Section 176(c) of the Clean Air Act requires federal agencies to ensure that actions undertaken in nonattainment or maintenance areas are consistent with the Clean Air Act and with federally enforceable air quality management plans. The U.S. EPA general conformity rule applies to federal actions occurring in nonattainment or maintenance areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified thresholds.

Some states, including California, have adopted ambient air quality standards that are more stringent than the comparable federal standards, or address pollutants that are not covered by federal ambient air quality standards. Ozone and suspended particulate matter are the air pollutants of greatest concern in California.

Greenhouse gas (GHG) compounds in the atmosphere absorb infrared radiation and re-radiate a portion of that back toward the earth's surface, trapping heat and warming the earth's atmosphere. The most important naturally occurring GHG compounds are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Carbon dioxide, methane, and nitrous oxide are produced naturally by respiration and other physiological processes of plants, animals, and microorganisms; by decomposition of organic matter; by volcanic and geothermal activity; by naturally occurring wildfires; and by natural chemical reactions in soil and water. Ozone is not released directly by natural sources; it forms during complex chemical reactions in the atmosphere among organic compounds and nitrogen oxides in the presence of ultraviolet radiation. Ozone in the lower atmosphere is so chemically reactive that it has a short residence time that limits its actual climate change effects. Although water vapor is a strong GHG, its concentration in the atmosphere is primarily a result of, not a cause of, changes in surface and lower atmospheric temperature conditions.

Although naturally present in the atmosphere, concentrations of carbon dioxide, methane, and nitrous oxide also are affected by emissions from industrial processes, transportation technology, urban development, agricultural practices, and other human activity.

In 2006, California passed Assembly Bill 32 (the California Global Warming Solutions Act of 2006; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which requires the California Air Resources Board to design and implement regulations, emission limits, and other measures to reduce statewide GHG emissions to 1990 levels by 2020. In 2010, federal operational GHG emission thresholds were established for large stationary sources. In addition, on February 18, 2010, the CEQ released draft guidance for federal agencies considering climate change in their NEPA decision-making documents. The guidance advises that the consideration of climate change address the GHG emission effects of a proposed project.

### 3.6.1 Affected Environment

Monterey County is designated as an attainment area for all federal standards for criteria pollutants (California Air Resources Board, 2012a). Monterey County is also designated as an attainment area for all state standards except ozone and $PM_{10}$ (California Air Resources Board, 2012b). The MBUAPCD does not have thresholds for the ozone precursors nitrogen oxide and reactive organic gas for construction projects less than 1 year, because this is accounted for in their emission inventories. The MBUAPCD has established a daily emissions threshold for $PM_{10}$ for construction projects of 82 pounds per day. The MBUAPCD has not adopted GHG thresholds for construction emissions.

There are no sensitive receivers near the project area.

### 3.6.2 Environmental Consequences

**Proposed Action**

Temporary adverse air quality impacts would occur from the generation of air pollutant and GHG emissions during construction. Heavy equipment operations and construction-related vehicle traffic would be the primary emissions sources at the project site during the construction period. Vehicles and heavy equipment used during construction of the Pier facilities would include pickup trucks, dump trucks, vibratory and impact hammers, generators, welders, saws, and air compressors. These sources would not operate continuously, thereby causing intermittent emissions. Construction would also require worker commute trips. Emissions would include the emission of various byproducts of fossil fuel, such as nitrogen oxides and $PM_{10}$. BMPs would be employed to minimize construction-generated dust.

Because the project area is not within a federal nonattainment or maintenance area, the Proposed Action is not subject to the Clean Air Act general conformity rule.

To determine conformance with the MBUAPCD's daily emissions threshold for $PM_{10}$ for construction projects, emissions for the project construction were estimated using the California Air Resource Board models OFFROAD2007, EMFAC2007, and the harbor craft emissions estimation, as well as conservative estimates of construction equipment, duration, and associated vehicular trips. The total estimated $PM_{10}$ emissions from the project are anticipated to be less than 1 ton, and less than 20 pounds daily; this is less than the MBUAPCD threshold of 82 pounds per day.

The Proposed Action would not result in a change in operational criteria pollutant and GHG emissions, because it would not introduce any new permanent sources of emissions.

Construction activities would require the use of marine vessels and construction equipment that would produce exhaust emissions and could create potentially objectionable odors; however, any impacts would be temporary and minor. Additionally, there are no sensitive receivers near the project area that would be impacted by such odors.

Therefore, minor adverse short-term air quality impacts would occur under the Proposed Action. No long-term adverse impacts would occur.

**No Action Alternative**

No air quality impacts are expected under the No Action Alternative, because no new sources of emissions or GHGs would be generated under this alternative.

# 3.7 Noise and Vibration

This section addresses the impacts of noise and vibration on the human and built environment. Noise and vibration impacts on biological resources are addressed in Section 3.1.

The Safety Element of the Monterey County General Plan limits noise-generating construction activities within 500 feet of sensitive land use areas to daytime hours, Monday through Saturday (County of Monterey, 2010).

Groundborne vibrations can be a source of annoyance to people or cause structural damage to some types of buildings. Both human annoyance effects and building damage effects depend in part on whether vibration events are isolated discrete events, or are a relatively continuous episode of vibrations. In general, there is less sensitivity to single events than to continuous or frequently repeated events.

## 3.7.1 Affected Environment

Sources of noise near the project area include recreational and commercial boat traffic, use of the adjacent parking lot and boat ramp, vehicular road traffic, occasional aircraft, and seabirds, California sea lions, and Pacific harbor seals using the Jetty. A survey of airborne ambient sound levels was conducted for the project area in August 2012. The median daytime sound level ranged from 62 to 68 decibels (dB) (C-weighted); the highest noise levels resulted from barking sea lions and seagulls (Illingworth and Rodkin, 2012).

Two parks are located within 600 feet of the project area along the shoreline: San Carlos Beach Park to the north, and Fisherman's Shoreline Park to the south. No other sensitive noise receptors, such as residences, schools, or hospitals, are located within 1,000 feet of the project area.

The nearest ground-based (non-floating) structures are located approximately 550 feet from the Pier.

## 3.7.2 Environmental Consequences

**Proposed Action**

Noise impacts of the Proposed Action would be limited to temporary increases in local noise levels from construction activities. Construction activity for the Proposed Action would occur over a period of approximately 45 to 60 days. Pile removal and installation and construction-related vehicular traffic would be the dominant temporary noise sources during the construction period. Pile driving would only occur on 10 days of construction period, and vibratory pile driving would be used to the extent possible. These noise sources would be

temporary as the equipment would operate intermittently, causing intermittent and variable noise impacts. Construction activities would be limited to daytime periods on weekdays, and therefore would be consistent with the Monterey County General Plan Safety Element. These impacts would be primarily experienced by personnel at the Station, nearby businesses at the landward end of the breakwater, and both land- and water-based recreationalists. This impact is expected to be minor because of the number of ambient noise sources, the relatively short construction period, and the limited extent of pile replacement work. Based on the distance of San Carlos Beach Park and Fisherman's Shoreline Park from the project area, these areas would not be impacted from noise from pile driving activities. Because of the levels of ambient noise generated from nearby road traffic and use of the adjacent parking lot, noise impacts from constructed-related vehicular traffic would be minimal.

Temporary groundborne vibration would be generated by pile replacement work. Because pile extraction and driving activities would be intermittent, temporary impacts related to groundborne vibration would minimal. Based on the distance of the nearest ground-based (non-floating) structures from the project area and the vibration levels produced by impact and vibratory pile driving equipment, temporary groundborne vibration during construction would not be expected to impact neighboring structures.

The project would not have operational noise or vibration impacts, because it would not add new permanent sources of noise or groundborne vibration.

**No Action Alternative**

No noise or vibration impacts are expected under the No Action Alternative, because no new temporary or permanent sources of noise or vibration would be generated under this alternative.

## 3.8 Coastal Zone

The Coastal Zone Management Act established in 1972 and administered by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources. The overall purpose of the Act is to balance competing land and water issues in the coastal zone. The California Coastal Commission is the agency responsible for issuing consistency determinations under the Coastal Zone Management Act for Monterey Bay.

Federal lands are excluded from the state coastal zone; however, federal actions that may have an effect on non-federal lands, waters, and natural resources in the coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of the state coastal program and California Coastal Act. If a federal agency determines the activity is likely to cause an effect, it is required to prepare and submit a coastal consistency determination to either the California Coastal Commission or to a Local Coastal Program, if one has been certified by the California Coastal Commission for a given area. Monterey County has a certified Local Coastal Program; however, all federal actions are reviewed by the state Coastal Commission. For activities that not expected to cause an effect, a negative determination may be submitted.

### 3.8.1 Affected Environment

The Pier is located on the eastern portion of the Station's waterfront facility along a breakwater that extends into Monterey Harbor. A paved access road runs along the breakwater, immediately north of the Pier and floating docks. The Pier access road is available to the general public; however, the USCG facilities are secured by fencing that prohibits public access.

### 3.8.2 Environmental Consequences

**Proposed Action**

Implementation of the project would not result in any coastal zone impacts or conflict with the federal Coastal Zone Management Act or California Coastal Act. Consistent with Section 30233 of the California Coastal Act, the waterfront repairs would maintain existing USCG facilities needed for the purpose of public service. The USCG will submit a negative determination to the California Coastal Commission.

**No Action Alternative**

Under the No Action Alternative, the waterfront repairs would not be conducted, and no impacts in or to the Coastal Zone would occur.

## 3.9 Visual Resources

### 3.9.1 Affected Environment

The visual perspective of the project foreground is generally characterized by the waters of the Monterey Bay and marina features such as the breakwater, berthing areas, parking, docks, retail shops and restaurants, and the Station buildings and fences. The project area is also home to California sea lions and Pacific harbor seals, which are viewed throughout most of the year from the public access road that extends along the breakwater. The recreation trail and parking facilities located along the shoreline west of the breakwater are partially obscured by trees that are interspersed along the shoreline. Middleground views are of the Bay, associated shoreline, vegetation associated with the 26-acre Lower Historic Presidio Park, and dense residential and retail buildings along the length of the shoreline. Background views are of the Coast Range Mountains to the south and southeast. The project area is located in the southern portion of Monterey Bay, which has several scenic vistas. The project area is frequently observed by local residents, by pedestrians and bicyclists that visit the historic Cannery Row district and marine environment, and by recreational divers and kayakers. The project area is also visible to passing boats and drivers traveling along State Route 1 (also known as Pacific Coast Highway), which is designated as a State Scenic Highway (Caltrans, 2012).

### 3.9.2 Environmental Consequences

**Proposed Action**

During construction, there would be temporary changes to the visual character of the project area, typical of staging and construction work. Certain construction activities would occur on

barges located in water near the Pier and Jetty. Given the typical amount of maritime activity in Monterey Harbor, the temporary addition of equipment and staging areas would be moderately noticeable to nearby residents and tourists that visit the site, and moderately visible to passing watercraft.

The new steel pipe piles and the repairs to the underside of the Pier would not disturb the existing visual character of the project area. The above deck repairs and repairs to the floating dock would be minor, would blend with the appearance of the existing infrastructure, and would not obstruct views. The Proposed Action would not create a new source of light or glare. Although the portion of State Route 1 that passes near the project area is designated as a State Scenic Highway, the proposed construction activities would not be noticeable to drivers, because the road is over 1 mile from the Pier.

Therefore, the project would result minor adverse short-term impacts and no long-term impacts to visual resources.

**No Action Alternative**

No visual resource impacts would occur under the No Action Alternative, because no features would be constructed, and there would be no changes in the visual character of the project area.

# 3.10 Recreation

### 3.10.1 Affected Environment

Public access to the USCG wharf is permitted from sunrise to sunset, and fishing is permitted on the northern side of the breakwater. The Pier access road is accessible to the general public; however, the USCG facilities are secured by fencing. The eastern end of the breakwater is not accessible to the public. At the landward end of the breakwater there are parking lots and a public ramp for boat launch, and waterfront access for kayakers, divers, and marine wildlife enthusiasts.

The adjacent San Carlos Beach Park is a 2.87-acre park located along the shoreline immediately north of the breakwater. This beach is a popular location for recreational divers because of underwater attractions such as a sunken barge and metridium (sea anemone) fields (City of Monterey, 2012a). Fisherman's Shoreline Park covers 5 acres of shoreline immediately south of the breakwater. Both of these parks provide recreational opportunities for swimmers, kayakers, and windsurfers. Other parks located in the project vicinity include the Monterey Peninsula Recreational Trail that runs along the shoreline, and the Lower Historic Presidio Park, which is a 26-acre park located to the east of the project site (City of Monterey, 2012c).

In addition to public facilities described above, nearby private businesses, such as dive shops, kayak rentals, and boat facilities cater to local recreation activities. The Monterey Boatworks Company is a marina located near the base of the Pier that provides 88 slips complete with amenities such as water, power, telephone and cable hookups, on-site fuel dock, restrooms, hot showers, and laundry room (Monterey Bay Boatworks, 2012).

### 3.10.2 Environmental Consequences

**Proposed Action**

During construction, nonmotorized and motorized boat access to areas immediately adjacent to the Pier would be temporarily restricted, but the passage of watercraft between the Pier and marina to the south would not be impeded. Pile extraction and driving equipment would be located on a barge or along the Pier access road at a location that would not impact current access to the floating docks or pier. However, the USCG may need to temporarily restrict the public from the access road during periodic loading and unloading of construction equipment and materials; based on the amount of materials anticipated to be required, this impact would be minor and temporary. The parking lot and boat launch ramp would remain open to the public during construction. Construction activities and staging areas would not impede or restrict access to the Monterey Boatworks Company, or impact use of the Monterey Peninsula Recreation Trail.

The USCG may deter California sea lions and Pacific harbor seals away from the project area during pile extraction and driving to avoid noise impacts to these species during construction; this would temporarily impact wildlife viewing on the Jetty. This impact would be minor, because there are many other locations nearby along the Monterey Bay shoreline to view wildlife, and because the interruption of viewing at the Jetty would be temporary. Wildlife viewing would not be permanently impacted, because these species would be expected to return to the Jetty once construction activities are completed, as they have following past construction activities in the project area.

Therefore, the project would result in minor adverse short-term impacts to recreational access and activities.

**No Action Alternative**

No impacts to recreational resources would occur under the No Action Alternative, because no construction or changes to recreational facilities or opportunities at or near the project area would occur.

## 3.11 Transportation, Navigation, and Access

### 3.11.1 Affected Environment

The project area can be accessed from Cannery Row, Wave Street, Foam Street, and Lighthouse Avenue, as well as Monterey Bay. Regional access to the project site is provided by State Route 1 and Highway 68. The project area and adjacent lands are popular destinations for tourists who travel these roads and use parking spots in the lot adjacent to the project area. The project area is also accessible by pedestrians and bicyclists by way of the Monterey Peninsula Recreation Trail.

Marine transportation is accommodated by an adjacent public boat launch and the Monterey Boatworks Company, which maintains 88 boat slips. Several berths are also present at the City of Monterey Municipal Wharfs, located south of the project area.

### 3.11.2 Environmental Consequences

**Proposed Action**

The Proposed Action would not construct new roadways or alter existing roadways, and therefore would have no permanent impacts to vehicular transportation. Further, construction vehicle traffic would be minimal, and limited to trucks used for loading and unloading of materials, as well as worker transport to the site. This may result in a temporary and intermittent addition of a minor amount of additional vehicles to the project site, which would not substantially impact traffic flow on local or regional roadways.

Construction and implementation of the Proposed Action would not restrict, reduce, or impede access to the Monterey Peninsula Recreation Trail, and would therefore have no impact to pedestrian or bicycle circulation.

Access to the boat slips would be maintained, and the project would not temporarily or permanently alter off-shore structures that could impede navigation. Construction would involve locating a barge in Monterey Bay; however, this barge would be temporary and would not restrict navigation to the boat launch and surrounding piers.

Therefore, the project would result in minor adverse short-term impacts to transportation and access.

**No Action Alternative**

Transportation, navigation, and access impacts would not occur under the No Action Alternative, because no features would be constructed or repaired.

## 3.12 Cumulative Impacts

A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR, Part 1508.7).

### 3.12.1 Projects Considered

As discussed above, the potential impacts of the Proposed Action would be localized, and therefore, the geographic area of cumulative impact assessment would also be limited to the local context. Past, present, and reasonably foreseeable actions were identified based on information obtained from the USCG, government agencies, and readily available land-use planning and environmental documents.

Past actions in the area include the construction and maintenance of maritime and recreational facilities, construction and maintenance of USCG facilities, vessel movement within Monterey Bay, and maintenance dredging. These past actions are assumed to create the existing affected environment.

Ongoing and current projects are limited to use and maintenance of the Station facilities, nearby recreation and commercial facilities, and use of the Bay by recreation and commercial vessels.

Reasonably foreseeable actions include specific projects for which environmental compliance is complete or under way; projects listed in short-range adopted land use or management plans; and those projects specifically identified by a land or resource managing agency to be "reasonably foreseeable." The City of Monterey Planning Department provides a list of reasonably foreseeable future actions for cumulative analysis (City of Monterey, 2012d) that include the following actions in the cumulative impact study area:

- *City of Monterey Ongoing Sewer Rehabilitation Project*, which includes four minor repair projects near the project area;
- *Waterfront Master Plan*, which will guide development for a portion of the City's waterfront, and in which improving access to the USCG Pier is identified as a key goal;
- *Lighthouse Specific Plan*, which will guide development of transit-oriented, mixed-use development along the Lighthouse Avenue and Foam Street corridors;
- *300 Cannery Row*, a proposed development of 11 residential condominiums and 1,570 square feet of retail space;
- *Ocean View Plaza,* a mixed-use development project with 87,362 square feet of commercial use, 30,000 square feet of restaurant space, 8,408 square feet of coastal/ community use, 38 market-rate condominiums, and 13 inclusionary housing units; and
- *Maintenance Dredging of the Boat Basin at the USCG Station*; harbor dredging is limited to the marina area and an area near the fuel pier and Coast Guard Pier Parking Lot launch ramp (City of Monterey, 2010).

Additionally, climate change could result in sea-level rise and increased storm severity and wave action, which could influence erosion patterns in the project area.

### 3.12.2 Evaluation of Cumulative Impacts

The potential cumulative impacts of each alternative are discussed below. If an alternative would have no or negligible direct or indirect impacts to a resource, that alternative is assumed to not contribute to any cumulative impact on that resource, and is not discussed further in this section. Therefore, because both the No Action Alternative and the Proposed Action Alternative would have no or negligible impacts to cultural resources or the coastal zone, neither alternative would contribute to any cumulative impact on these resources.

The Proposed Action would impact the following resource areas: biological resources, geology and soils, water quality, hazardous materials, air quality, noise and vibration, visual resources, recreation, and transportation and access. Adverse impacts from the Proposed Action on each of these resources would be temporary, localized, and associated with construction. Construction associated with reasonably foreseeable future actions would also be expected to produce similar temporary impacts on these resources. The future actions would be subject to environmental review and permitting processes similar to those for the Proposed Action, which would include identification of measures to minimize construction-related impacts. Due to the relatively short construction period for the Proposed Action, any overlap in construction activities with the future actions would be short in duration. Therefore, adverse cumulative impacts from construction of the Proposed Action would be minor. Although the future actions could have long-term environmental impacts associated with operation (e.g., air quality, noise, visual, and transportation), the Proposed Action is not expected to result in adverse operational impacts, and therefore would not contribute to long-term cumulative impacts.

Lowland areas of the Pacific Coast, including certain parts of Monterey Bay, are more susceptible to the potential impacts of sea-level rise and severe storm events that could occur with global climate change. Both sea-level rise and storm events of increased severity could accelerate erosion at the project site and pose an increased risk for flooding. The sea-level rise rate of increase over the past 10 tidal epochs[3] is estimated to be approximately 0.0072 foot per year, or almost double the 100-year historic yearly average. Using the rate of 0.0072 foot per year, an increase in sea-level of 9 to 10 inches may be anticipated over the next 100 years. However, it has also been reported that sea-level rise will not occur evenly everywhere in the world. Data from tidal readings since 1853 indicate that sea-level rise is not (yet) occurring in Central California (City of Monterey, 2010). The breakwater limits erosion of areas to the south of it by attenuating wave, tide, current, and ship wake effects; because the Pier is on the southern side of the breakwater, it is protected from these forces. The Proposed Action would contribute to protection of the USCG Pier facilities from these potential risks, and therefore would not contribute to adverse cumulative impacts related to climate change.

## 3.13 Growth-Inducing Impacts

Analysis of growth-inducing impacts includes those characteristics of the project that may encourage and facilitate activities that would, either individually or cumulatively, affect the environment. Population increases, for example, may impose new burdens on community service facilities. Similarly, improving access routes may encourage growth in previously undeveloped areas. Implementing the Proposed Action would not require housing or lead to establishment of businesses. The Proposed Action would not require the temporary influx of a substantial number of workers, and would not create new jobs or require new ancillary facilities or personnel at the site. Therefore, this alternative would not contribute to development or result in economic growth in the area. Therefore, no growth inducement would result from implementing the Proposed Action.

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[3] A tidal epoch is a cycle of approximately 18.6 years of the principal tide-producing forces.

## 3.14 Mitigation

Measures to minimize environmental impacts were incorporated during the project planning and design. These measures were incorporated into the project description, along with industry-standard BMPs that would be used to reduce potential impacts during construction. No mitigation measures would be required for implementation of the No Action Alternative. The mitigation measures described below would be completed if the Proposed Action were implemented.

### 3.14.1 Biological Resources

Mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4, as presented in Section 3.1.2, would be implemented to minimize potential construction impacts on marine mammals and special-status fish species. These measures include pile driving operational measures, acoustic monitoring, seasonal restrictions on impact pile driving, and physical deterrence for the purpose of worker and California sea lion safety.

# Chapter 4
# Comparative Analysis

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

## 4.1 Proposed Action

The Proposed Action would result in temporary impacts from construction on biological resources, geology and soils, water quality, hazardous materials, air quality, noise and vibration, visual resources, recreation, and transportation and access. Additionally, implementation of the Proposed Action would have long-term beneficial impacts on geology and soils, water resources, and safety. This Proposed Action would satisfy the purpose and need for the project to maintain functioning and accessible USCG facilities, so that the USCG can continue to fulfill its mission.

The Proposed Action's potential adverse impacts on biological resources would be considered less than significant with implementation of mitigation measures to minimize potential construction impacts on marine mammals and special-status fish species. The USCG would also implement additional measures to further reduce impacts that may be identified through the Section 7 and IHA consultation processes with the NMFS and USFWS.

## 4.2 No Action Alternative

The No Action Alternative would have fewer adverse impacts than the Proposed Action; however, the No Action Alternative would not satisfy the need for the project. Although the No Action Alternative would not have adverse impacts on biological resources, hazardous materials, air quality, noise and vibration, visual resources, recreation, and transportation and access, it would have potential indirect adverse impacts on geology and soils, water quality, and safety. Although the No Action Alternative is more environmentally benign than the Proposed Action, the No Action Alternative would not meet the project's purpose and need.

# Chapter 5
# Environmental Significance of the Proposed Action

The Proposed Action would impact the following resource areas: biological resources, geology and soils, water quality, hazardous materials, air quality, noise and vibration, visual resources, recreation, and transportation and access. These adverse effects would be less than significant. In addition, the Proposed Action would have long-term beneficial impacts on geology and soils, water resources, and safety.

The project will be coordinated with the following federal and state regulatory agencies to ensure compliance with applicable regulations: U.S. Army Corps of Engineers, USFWS, NMFS, CCRWQCB, California SHPO, and California Coastal Commission.

The Proposed Action is needed to protect and maintain functioning and accessible facilities at the Station to allow the USCG to continue to fulfill its mission. The adverse environmental impacts associated with the project are generally short-term. The impact analysis in Chapter 3 provides evidence that the Proposed Action would not cause a significant impact on the environment. In order to complete the NEPA documentation process, a FONSI should be issued for this project.

# Chapter 6
# List of Agencies Contacted

- Amah Mutsun Tribal Band
- California Coastal Commission
- California Department of Fish and Wildlife
- Central Coast Regional Water Quality Control Board
- City of Monterey
- City of Pacific Grove
- Coastanoan Rumsen Carmel Tribe
- County of Monterey
- Indian Canyon Mutsun Band of Costanoan
- Monterey Bay National Marine Sanctuary
- Monterey Bay Unified Air Pollution Control District
- Monterey County Historical Society
- National Marine Fisheries Service
- Native American Heritage Commission
- Ohlone/Coastanoan-Esselen Nation
- Office of the Monterey Harbormaster
- State Historic Preservation Officer
- U.S. Army Corps of Engineers
- United States Fish and Wildlife Service

# Chapter 7
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# Appendix A: Potential for Occurrence of Special-Status Species in the Study Area

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| **MARINE VEGETATION** | | | | | |
| Kelp forest (giant kelp, bull kelp) | *Macrocystis pyrifera, Nereocystis luetkeana* | HAPC | Subtidal areas where natural bare rock is present, includes kelp species able to grow tall enough to reach the surface. | L | No |
| Eelgrass | *Zostera marina* | No Take | Sheltered, intertidal zones off the coast on sandy substrates, bay mud flats in estuarine settings. | L | No |
| Sea palm | *Postelsia palmaeformis* | No Take | Annual kelp found in rocky mid- to upper intertidal zones with high wave action. | N | No |
| Surf grass | *Phyllospadix scouleri* | No Take | Rocky intertidal areas in the exposed surf zone. | L | No |
| **TERRESTRIAL VEGETATION** | | | | | |
| Adobe sanicle | *Sanicula maritima* | SR,1B.1 | Coastal prairie, chaparral, valley grassland, wetland riparian. | N | No |
| Beach layia | *Layia carnosa* | FE, SE, 1B.1 | Sparsely vegetated, semi-stabilized dunes along the northern California Coast. | N | No |
| Coastal dunes milk-vetch | *Astragalus tener* var. *titi* | FE, SE, 1B.1 | Moist coastal dunes, strand, sage scrub, and wetland riparian habitats from Monterey to San Diego counties. | N | No |
| Contra Costa goldenfields | *Lasthenia conjugens* | FE, 1B.1 | Endemic to vernal pool habitats in valley grassland. | N | No |
| Eastwood's goldenbush | *Ericameria fasciculata* | 1B.1 | Endemic to Monterey County chaparral, closed-cone forest, and northern coastal scrub. | N | No |
| Gowen cypress | *Hesperocyparis goveniana* | FT, 1B.2 | Endemic to closed-cone forests within 1.9 miles of the coast. | N | No |
| Hickman's checkerbloom | *Sidalcea hickmanii* ssp. *hickmanii* | 1B.3 | Endemic to Monterey County chaparral. | N | No |
| Hickman's cinquefoil | *Potentilla hickmanii* | FE, SE, 1B.1 | Meadows and freshwater marshes in coastal scrub and closed-cone forests. | N | No |
| Jolon clarkia | *Clarkia jolonensis* | 1B.2 | Endemic to Monterey County foothill woodland. | N | No |
| Little Sur manzanita | *Arctostaphylos edmundsii* | 1B.2 | Endemic from San Mateo to Monterey counties in chaparral and northern coastal scrub. | N | No |
| Menzies' wallflower | *Erysimum menziesii* ssp. *menziesii* | FE, SE, 1B.1 | Fore-dunes along the coast of northern California. | N | No |

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| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Monterey clover | *Trifolium trichocalyx* | FE, SE, 1B.1 | Endemic to closed-cone pine forests in Monterey County. | N | No |
| Monterey cypress | *Hesperocyparis macrocarpa* | 1B.2 | Closed-cone forests from 33 to 98 feet in elevation. | N | No |
| Monterey larkspur | *Delphinium hutchinsoniae* | 1B.2 | Endemic to Monterey County coastal prairie, chaparral, mixed evergreen forest, and northern coastal scrub. | N | No |
| Monterey manzanita | *Arctostaphylos montereyensis* | 1B.2 | Endemic to Monterey County chaparral, foothill woodland, and northern coastal scrub. | N | No |
| Monterey pine | *Pinus radiata* | 1B.1 | Coastal closed-cone pine forests of California; rare in the wild but commonly planted in urban settings. | N | No |
| Monterey spineflower | *Chorizanthe pungens* var. *pungens* | FT, 1B.2 | Endemic to chaparral, foothill woodland, north coast sage scrub and dunes in California. | N | No |
| Pacific Grove clover | *Trifolium polyodon* | SR, 1B.1 | Meadows and wetland-riparian habitat in coastal prairie or closed-cone pine forest. | N | No |
| Purple amole | *Chlorogalum purpureum* var. *purpureum* | FT, 1B.1 | Endemic to Monterey County valley grassland and foothill woodland. | N | No |
| Robust spineflower | *Chorizanthe robusta* var. *robusta* | FE, 1B.1 | Coastal strand, scrub, dunes, and foothill woodlands from Marin to Monterey counties. | N | No |
| Sand gilia | *Gilia tenuiflora* ssp. *arenaria* | FE, ST,1B.2 | Endemic to coastal strand, scrub, and dunes in Monterey County. | N | No |
| Sandmat manzanita | *Arctostaphylos pumila* | 1B.2 | Endemic to Monterey County chaparral, coastal strand, closed-cone pine forest, and northern coastal scrub. | N | No |
| Santa Lucia mint | *Pogogyne clareana* | SE, 1B.2 | Endemic to riparian woodlands of Monterey County. | N | No |
| Seaside bird's beak | *Cordylanthus rigidus* ssp. *littoralis* | SE, 1B.1 | Coastal dunes and scrub along central California coast. | N | No |
| Tidestrom's lupine | *Lupinus tidestromii* | FE, SE, 1B.1 | Endemic to coastal strand and dunes in northern and central California. | N | No |
| Yandon's rein orchid (piperia) | *Piperia yadonii* | FE, 1B.1 | Endemic to chaparral, coast scrub, and closed-cone pine forest in Monterey County. | N | No |
| Yandon's wallflower | *Erysimum menziesii* ssp. *yadonii* | FE, SE, 1B.1 | Endemic to coastal dunes in Monterey County. | N | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| **INVERTEBRATES** | | | | | |
| Black abalone | *Haliotis cracherodii* | FE | Rocky intertidal and subtidal habitats from the high tide line to a depth of 16.4 feet, usually near kelp beds. | L | Yes |
| Smith's blue butterfly | *Euphilotes enoptes smithi* | FE | Restricted to coastal dunes in Monterey and Big Sur where native *Eriogonum* grows. | N | No |
| **REPTILES** | | | | | |
| Leatherback turtle | *Dermochelys coriacea* | FE | Open ocean and coastal waters, feeds on jellyfish, seen offshore of Monterey in summer months. | L | No |
| **AMPHIBIANS** | | | | | |
| California red-legged frog | *Rana aurora draytonii* | FT | Slow-moving streams and drainages with dense emergent vegetation. | N | No |
| California tiger salamander (central valley DPS) | *Ambystoma californiense* | FT, ST | Breeds in vernal pools or small bodies of freshwater near upland aestivation habitat of small mammal burrows. | N | No |
| **BIRDS** | | | | | |
| American bittern | *Botaurus lentiginosus* | MBTA | Winters along the California coast, common in marshes and wet meadows. | N | No |
| American white pelican | *Pelecanus erythrorhynchos* | CSC, MBTA | Found along central to southern California coast during non-breeding periods. | U | No |
| Ashy storm-petrel | *Oceanodroma homochroa* | CSC, MBTA | Common to Monterey coastline in fall, offshore resident remainder of year. | U | No |
| Black oystercatcher | *Haematopus bachmani* | MBTA | Common resident of Monterey Bay, feeds and inhabits rocky intertidal zone. | L | No |
| Black skimmer | *Rynchops niger* | CSC, MBTA | Coastal seabird that also inhabits rivers and lagoons. Large breeding population in Carmel Valley. | U | No |
| Black storm-petrel | *Oceanodroma melania* | CSC, MBTA | Forages inshore and offshore, nests on islands adjacent to southern California and Mexican coasts. | U | No |
| Black turnstone | *Arenaria melanocephala* | MBTA | Breeds in Alaska during summer, common migrant in fall and spring along west coast of North America. Observed onsite and during the site visit for the subject project. | L | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Black-footed albatross | *Phoebastria nigripes* | MBTA | Nests in the central Pacific, foraging range extends to California during rearing period. Feeds on squid, fish, crustaceans. | N | No |
| Black-necked (eared) grebe | *Podiceps nigricollis* | MBTA | Breeds in freshwater marshes and lakes, non-breeding habitat includes coastal estuaries, arms of the sea, and inshore shallows in bays and channels. | L | No |
| Black-vented shearwater | *Puffinus opisthomelas* | MBTA | Breeds on islands off of Mexico; ranges as far north as Oregon during post-breeding months. Frequently encountered close to the shoreline. | U | No |
| Brandt's cormorant | *Phalacrocorax penicillatus* | MBTA | Strictly marine, found on rocky coasts and islets along the Pacific coast of North America. A large colony breeds on the USCG Pier. Observed onsite. | L | No |
| Buller's shearwater | *Puffinus bulleri* | MBTA | Feeds on krill, small fish, salps, and jellyfish at sea and offshore. Breeds in New Zealand, migrates to North America. | U | No |
| California black rail | *Laterallus jamaicensis coturniculus* | ST, MBTA | Feeds and inhabits dense coastal salt marshes and occasionally freshwater marshes. | N | No |
| California brown pelican | *Pelecanus occidentalis californicus* | FD, SD/SFP, MBTA | Feeds in estuaries and coastal waters, nests on rocky islands in coastal waters. Observed onsite. | L | No |
| California clapper rail | *Rallus longirostris obsoletus* | FE, SE, MBTA | Inhabits well-developed salt marshes of estuaries. | N | No |
| California gull | *Larus californicus* | MBTA | Found on coasts, estuaries, bays, mudflats and fields, breeding in open habitats usually on low rocky islands in freshwater and hypersaline lakes. | L | No |
| California least tern | *Sterna antillarum browni* | FE, SE, MBTA | Feeds on small fish in estuaries and lagoons, nests on sandy or gravelly substrates. | N | No |
| Cassin's auklet | *Ptychoramphus aleuticus* | CSC, MBTA | Feeds on crustaceans and larval fish in offshore habitats. Nearest colony located in Marin County. | U | No |
| Clark's grebe | *Aechmophorus clarkii* | MBTA | Migrates to Pacific coast in winter. Nests on inland lakes of North America. | L | No |
| Common loon | *Gavia immer* | CSC, MBTA | Winters on sea coasts, breeds on large lakes in North America. | L | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Double-crested cormorant | *Phalacrocorax auritus* | MBTA | Common resident to rocky shores of North America also found inland on bodies of freshwater. Observed onsite. | L | No |
| Elegant tern | *Sterna elegans* | CSC, MBTA | Forages in inshore waters, estuarine habitats, salt ponds and lagoons; and rocky coastlines. Nests on flat, rocky coastal areas. | U | No |
| Forked-tailed storm-petrel | *Oceanodroma furcata* | CSC, MBTA | Pelagic species occasionally seen near shore. | N | No |
| Great egret | *Ardea alba egretta* | MBTA | Common to marshes and estuaries, frequently forages along coastline. | L | No |
| Great blue heron | *Ardea herodias* | MBTA | Common to marshes and estuaries, frequently forages along coastline. | L | No |
| Harlequin duck | *Histrionicus histrionicus* | CSC, MBTA | Breeds in inland freshwater habitats, winters along northern hemisphere coasts. | U | No |
| Heermann's gull | *Larus heermanni* | MBTA | Common to Monterey Bay, feeds in the littoral zone and inshore waters. Observed onsite and during the site visit for the subject project. | L | No |
| Horned grebe | *Podiceps auritus* | MBTA | Habitats include small pools, marshes with patches of open water and secluded sections of larger lakes and rivers. Frequents coastal inshore waters during non-breeding season. | L | No |
| Laysan albatross | *Phoebastria immutabilis* | MBTA | Primarily pelagic species nesting on northern Pacific islands. Feeds primarily on cephalopods. | N | No |
| Least bittern | *Ixobrychus exilis* | CSC, MBTA | Breeds and feeds in marshland habitat. | N | No |
| Long-billed curlew | *Numenius americanus* | CSC, MBTA | Winters in large coastal estuaries, wet meadows and croplands, with some non-breeders year-round in California. | N | No |
| Marbled godwit | *Limosa fedoa* | MBTA | Common coastal migrant in fall and spring, feeds in tidal sands and mudflats. | N | No |
| Marbled murrelet | *Brachyramphus marmoratus* | FT, SE, MBTA | Inhabits old-growth conifer forest up to 50 miles inland. Feeds on fish in estuaries and coastal waters post breeding, during fall/winter. | U | No |
| Mew gull | *Larus canus* | MBTA | Found in estuaries with low salinities, sandy beaches and estuarine mudflats. Its diet consists of aquatic and terrestrial invertebrates and small fish. | L | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Pacific loon | *Gavia pacifica* | MBTA | Breeds on large, deep freshwater lakes and winters on inshore waters along sheltered coasts, occasionally inland. | L | No |
| Pelagic cormorant | *Phalacrocorax pelagicus* | MBTA | Marine species that feeds and nests in sheltered coastal waters. Known to nest beneath Cannery Row buildings. | L | No |
| Pied-billed grebe | *Podilymbus podiceps* | MBTA | Diving bird, found in marshes, ponds, and marine habitats. | L | No |
| Pink-footed shearwater | *Puffinus creatopus* | MBTA | Feeds on small fish in offshore and pelagic settings. Breeds off the coast of Chile; migrates as far north as Alaska. | U | No |
| Red knot | *Calidris canutus* | MBTA | Feeds on intertidal invertebrates, breeds in summer in Arctic; non-breeding visitor to coastlines worldwide. | U | No |
| Red phalarope | *Phalaropus fulicarius* | MBTA | Migratory wader that winters at sea on tropical oceans. | L | No |
| Red-breasted merganser | *Mergus serrator* | MBTA | Winters at sea, frequenting both inshore and offshore waters, estuaries, bays and brackish lagoons. | L | No |
| Rhinoceros auklet | *Cerorhinca monocerata* | CSC, MBTA | Pelagic species that feeds near-shore and nests on maritime and inland grassy slopes. | N | No |
| Ruddy turnstone | *Arenaria interpres* | MBTA | Forages in flocks along coastlines worldwide during non-breeding season. | L | No |
| Sanderling | *Calidris alba* | MBTA | Common spring and fall migrant along eastern Pacific coastline, summer breeder in Arctic Circle. | U | No |
| Scripp's murrelet | *Synthliboramphus scrippsi* | FC, ST, MBTA | Feeds on the open ocean throughout California, nests on the Channel Islands of southern California and the Baja Peninsula. Encountered in outer Monterey Bay outside breeding season. | U | No |
| Short-billed dowitcher | *Limnodromus griseus* | MBTA | Common coastal migrant in fall and spring, feeds in tidal sands and mudflats. | N | No |
| Short-tailed albatross | *Phoebastria albatrus* | FE, CSC, MBTA | Migrant of the open oceans, rarely seen in coastal waters. Nests on remote islands. | N | No |
| Snowy egret | *Egretta thula* | MBTA | Breeds in large inland and coastal wetlands, Eats fish, crustaceans, insects and small reptiles. | L | No |
| Sooty shearwater | *Puffinus griseus* | MBTA | Breeds on islands in the far South Pacific but migrates to coastal habitats worldwide. Becoming less common in California. | U | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Surf scoter | *Melanitta perspicillata* | MBTA | Breeds on small bodies of fresh water in boreal forests or tundra, wintering at sea in shallow waters of bays, estuaries and river mouths. | L | No |
| Surfbird | *Aphriza virgata* | MBTA | Breeds in Alaska, fall and spring migrant and occasional winter resident of eastern Pacific coast. Observed onsite. | L | No |
| Tufted puffin | *Fratercula cirrhata* | CSC, MBTA | Pelagic seabird that feeds offshore in northern Pacific, breeds primarily in Arctic and rarely on Pacific coastal islands. | N | No |
| Western grebe | *Aechmophorus occidentalis* | MBTA | Migrates to Pacific coast in winter. Nests on inland lakes of North America. | L | No |
| Western gull | *Larus occidentalis* | MBTA | Confined to the coast, staying on a few kilometers inland. It has a very varied diet, including marine fish and invertebrates; eggs, chicks, and adults of seabirds; carrion; and spawning salmon. | L | No |
| Western sandpiper | *Calidris mauri* | MBTA | Feeds on intertidal invertebrates, breeds in summer in Arctic; non-breeding visitor to coastlines of North and South America. | U | No |
| Western snowy plover | *Charadrius alexandrinus nivosus* | FT, CSC, MBTA | Feeds on intertidal or freshwater marshes. Nests on bare sand or shell beaches in remote or inaccessible areas. | N | No |
| Whimbrel | *Numenius phaeopus* | MBTA | Common coastal migrant in fall and spring, feeds on rocky shores, rip-rap, tidal sands and mudflats. | L | No |
| **FISH** | | | | | |
| Chinook salmon, California coastal ESU | *Oncorhynchus tshawytscha* | FT | Anadromous fish that spawns in coastal creeks. Estuarine habitat, used for rearing, includes tidally influenced areas up to mean higher-high water. | L | No |
| Coho salmon, central California coast ESU | *Oncorhynchus kisutch* | FE, SE | Anadromous fish that spawns in coastal creeks but rears in estuaries and near-shore marine waters. Estuarine habitat includes tidally influenced areas up to mean higher-high water. | L | No |
| Green sturgeon, southern DPS | *Acipenser medirostris* | FT | Anadromous fish that spawns in large rivers, feeds and rears in estuaries and near-shore marine waters. Estuarine habitat includes tidally influenced areas up to mean higher-high water. | L | Yes |
| Eulachon, southern DPS | *Thaleichthys pacificus* | FT | Anadromous fish that spawns in the lower reaches of river systems and rears near shore and in estuaries. | N | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Longfin smelt | *Spirinchus thaleichthys* | ST | Anadromous fish that spawns in the lower reaches of river systems, rears in estuaries and near shore waters. | U | No |
| Steelhead, central California coast DPS | *Oncorhynchus mykiss* | FT | Anadromous fish that spawns in coastal creeks, including tributaries of Monterey Bay and Carmel Bay. Estuarine habitat, used for rearing, includes tidally influenced areas up to mean higher-high water. | L | No |
| Tidewater goby | *Eucyclogobius newberryi* | FE | Inhabits the upper portions of tidal bays and tidal lagoons, generally in the salt/freshwater mixing zone. | N | No |
| **MARINE MAMMALS** | | | | | |
| Baird's beaked whale | *Berardius bairdii* | MMPA | Migrant of the open oceans, seen in coastal waters off Monterey in summer and fall. | N | No |
| Beaked whales | *Mesoplodon* spp. | MMPA | Migrant of the open oceans, rarely seen in coastal waters. | N | No |
| Blue whale | *Balaenoptera musculus musculus* | FE, MMPA | Migrant of the open oceans, seen in coastal waters off Monterey in summer and fall. | N | No |
| Bottlenose dolphin | *Tursiops truncatus* | MMPA | Seen frequently near shore in Monterey, found in tropical and temperate waters worldwide. | U | No |
| California sea lion | *Zalophus californianus* | MMPA | Breeds on Channel Islands; the USCG Pier is a haul-out for hundreds of sea lions. | L | No |
| Cuvier's beaked whale | *Ziphius cavirostris* | MMPA | Migrant of the open oceans, rarely seen in coastal waters. | N | No |
| Dall's porpoise | *Phocoenoides dalli* | MMPA | Commonly encountered in Monterey Bay year-round. | U | No |
| Fin whale | *Balaenoptera physalus* | FE, MMPA | Migrant of the open oceans, rarely seen in coastal waters. | N | No |
| Gray whale | *Eschrichtius robustus* | MMPA | Migrant of the open oceans, commonly seen in coastal waters off Monterey in winter and spring. | L | No |
| Guadalupe fur seal | *Arctocephalus townsendi* | FT, MMPA | Coastal waters of California and Baja California. | U | No |
| Harbor porpoise | *Phocoena phocoena* | MMPA | Elusive but regularly sighted species in inshore waters of Monterey Bay, widespread in northern coastal waters. | L | No |

**Table A-1: Potential for Occurrence of Special-Status Species in the Study Area**

| Common Name | Scientific Name | Federal and/or State Status, CRPR, other management | Habitat Requirements/Description | Likelihood to Occur in Study Area | Critical Habitat in Study Area |
|---|---|---|---|---|---|
| Pacific harbor seal | *Phoca vitulina* | MMPA | Widespread in coastal waters of the Northern Hemisphere. Commonly seen along shoreline of Monterey Bay, both foraging, and in haul-outs. | L | No |
| Humpback whale | *Megaptera novaeangliae* | FE, MMPA | Migrant of the open oceans, commonly seen in coastal waters off Monterey in summer and fall. | N | No |
| Killer whale (southern resident) | *Orcinus orca* | FE, MMPA | Coastal waters from Queen Charlotte Island south to central California coast. Occasionally seen near-shore from the Monterey shoreline. | U | No |
| Long-beaked common dolphin | *Delphinus capensis* | MMPA | Common in summer and fall within Monterey Bay, occurs in large groups near-shore. | U | No |
| Minke whale | *Balaenoptera acutorostrata* | MMPA | Uncommon year round, may be observed in near-shore waters of Point Pinos, especially in summer and fall. | N | No |
| Northern elephant seal | *Mirounga angustirostris* | MMPA | Large breeding colonies just north of Monterey, feeds in deep pelagic waters from Baja to Alaska. Forages or may come to shore within Monterey Bay. | U | No |
| Northern fur seal | *Callorhinus ursinus* | MMPA | Breeds in Alaska, feeds in pelagic waters. Observed in oceanic waters but not near shore off Monterey Bay. | N | No |
| Northern right whale dolphin | *Lissodelphis borealis* | MMPA | Common in summer and fall in Monterey Bay, occurs in large groups, feeds on squid. | U | No |
| Pacific right whale | *Eubalaena glacialis* | FE, MMPA | Migrant of the open oceans, rarely seen in coastal waters. | N | No |
| Risso's dolphin | *Grampus griseus* | MMPA | Common in Monterey Bay year-round, though primarily in deeper water. | U | No |
| Sei whale | *Balaenoptera borealis* | FE, MMPA | Migrant of the open oceans, rarely seen close to shore. | N | No |
| Short-finned pilot whale | *Globicephala macrorhynchus* | MMPA | Migrant of the open oceans, rarely seen in coastal waters, deceased individuals will occasionally beach-cast in Monterey. | N | No |
| Southern sea otter | *Enhydra lutris nereis* | FT, MMPA | Coastal waters of central California, particularly Monterey County. | L | No |
| Sperm whale | *Physeter macrocephalus* | FE, MMPA | Migrant of the open oceans, rarely seen in coastal waters, feeds on squid in deep waters off Monterey Bay. | N | No |
| Steller sea lion (western stock) | *Eumetopias jubatus* | FT, MMPA | Coastal waters of the northern Pacific, occasionally observed at USCG Pier in Monterey in fall and winter months. | U | No |

***Table A-1 Sources:***

The species in this table were identified from:

USFWS (U.S. Fish and Wildlife Service). 2013. [http://www.fws.gov/ecos/ajax/tess_public/SpeciesReport.do]

SIMoN (Sanctuary Integrated Monitoring Network) 2012. Monterey Bay National Marine Sanctuary Special Status Species. [http://www.sanctuarysimon.org/monterey/sections/specialSpecies/]

CDFW (California Department of Fish and Wildlife), 2012. California Natural Diversity Database (CNDDB), Program "Rarefind," version 3.10. Sacramento, California. Data update current through August 3, 2012.

California Native Plant Society (CNPS) 2012. Local Endemic Plants – Monterey Bay Chapter [http://montereybay.cnps.org/local-endemic-plants]

eBird. 2013. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: http://www.ebird.org.

BirdLife International (2012) IUCN Red List for birds. Downloaded from http://birdlife.org/datazone/species/search.

*MMPA – Marine Mammal Protection Ac*
*MBTA – Migratory Bird Treaty Act*
*No Take – Take or possession is prohibited under the California Fish and Wildlife Code*
*HAPC – Habitat of Particular Concern, Pacific Groundfish Fishery Management Plan*
*ESU – Evolutionarily Significant Unit*
*DPS – Distinct Population Segment*
*FT - Federally Threatened: species likely to become endangered within the foreseeable future.*
*FE - Federally Endangered: species in danger of becoming extinct throughout all or a significant portion of its range.*
*FC – Candidate for listing under the Federal ESA*
*FD – Delisted under the Federal ESA*
*ST – State Threatened: species likely to become endangered within the foreseeable future.*
*SE – State Endangered: species whose continued existence in California is in jeopardy.*
*SFP – fully protected under the California Fish and Game Code.*
*SD – Delisted under the California ESA*
*CSC – California species of concern*
*California Rare Plant Rank (CRPR)*
*1B.1 - Plants considered rare, threatened, or endangered in California and elsewhere.*
*1B.2 - Plants considered rare, threatened, or endangered in California, but more common elsewhere.*
*1B.3 – Not very endangered in California*

# Appendix B: Comment Received on the Draft EA

***Ohlone/Costanoan-Esselen Nation***

*Previously acknowledged as*
*The San Carlos Band of*
*Mission Indians*
*The Monterey Band*
*And also known as*
*O.C.E.N. or Esselen Nation*
*P.O. Box 1301*
*Monterey, CA 93942*

www.ohlonecostanoanesselennation.org.

August 22, 2013

Kelly Bayer
URS Group, Inc.
One Montgomery Street, Suite 900
San Francisco, CA 94104
kelly.bayer@urs.com

Re: Draft Environmental Assessment for Waterfront Repairs at
United States Coast Guard Station Monterey, Monterey CA

Saleki Atsa,

Ohlone/Costanoan-Esselen Nation (OCEN) is the legal tribal government representing over 600 enrolled members of Esselen, Carmeleño, Monterey Band, Rumsen, Chalon, San Carlos Mission, Soledad Mission and/or Costanoan Mission Indian descent from the historic and previously federally recognized Monterey band of Monterey County. Though other descendants may have lived once in the area many families left the region over 130 years ago and have not had a relationship with our people since. As stated above the greater Monterey Bay area is the indigenous homeland of our people whom area enrolled in OCEN. Included with this letter please find a territorial map by compiled from the ethnographic and ethnohistoric work conducted by such notables as Alexander Taylor 1856; Dr. Richard Levy 1978; and Dr. Randall Milliken 1990 (and others), identifying the aboriginal distribution of our respective villages, districts and groups within our ethnohistoric Tribal area surrounding the Monterey Bay. At the present time we are unable to provide you with specific cultural resource information, but formally request that OCEN be contacted upon any findings relative of our ancestral heritage sites that might be impact as a result of this project.

**Ohlone/Costanoan-Esselen Nation's General Policy about the Potential Destruction of our Ancestral Heritage Sites**

**Ohlone/Costanoan-Esselen Nation objects to all excavation in known and recorded Ancestral Heritage Sites, even when they are described as previously disturbed, and of no significant archaeological value. OCEN has been involved in projects that were considered previously disturbed, yet Ancestral remains were found at a level not disturbed.** Please be advised that it is our first priority that ancestral heritage sites be preserved and that our ancestor's remains be protected and undisturbed. We desire that all cultural and sacred items (regalia) be left with our ancestors on site or where they are

discovered. We further insist on the respect that is afforded all of our ancestral deceased persons, these ancestral burial sites are not "cultural resources" but they are formal cemeteries, therefore, we expect respectful treatment our these sacred ceremonial sites. Our definition of respect means **no disturbance.** .

In conclusion please be aware that despite our objection, disturbance continues, therefore, we formally request that Ohlone/Costanoan-Esselen Nation be consulted as to any planned projects that might adversely impact known or predicted ancestral heritage sites within our aboriginal territory. Furthermore, the OCEN Tribal leadership desires to be contacted about any: 1) surveys, 2) subsurface soil boring testing, 3) presence/absence testing, 4) mitigation and recovery programs, 5) reburial of any of our ancestral remains, 6) placement of all cultural items, and 7) that a Native American Monitor from Ohlone/Costanoan-Esselen Nation, approved by the OCEN Tribal Council be used on any and all projects from within our aboriginal territory.

We look forward to hearing more information about this project; please feel free to contact me at (408) 629-5189. Nimasianexelpasaleki. Thank you for your attention to this matter.

Sincerely and Respectfully Yours,

Louise J. Miranda Ramirez, Chairperson
Ohlone/Costanoan-Esselen Nation
(408) 629-5189

Cc: OCEN Tribal Council

## Distribution of Ohlone/Costanoan-Esselen Nation Tribal Rancherias, Districts, Landgrants and Historic Landmarks

## OCEN DIRECT LINEAL DESCENT

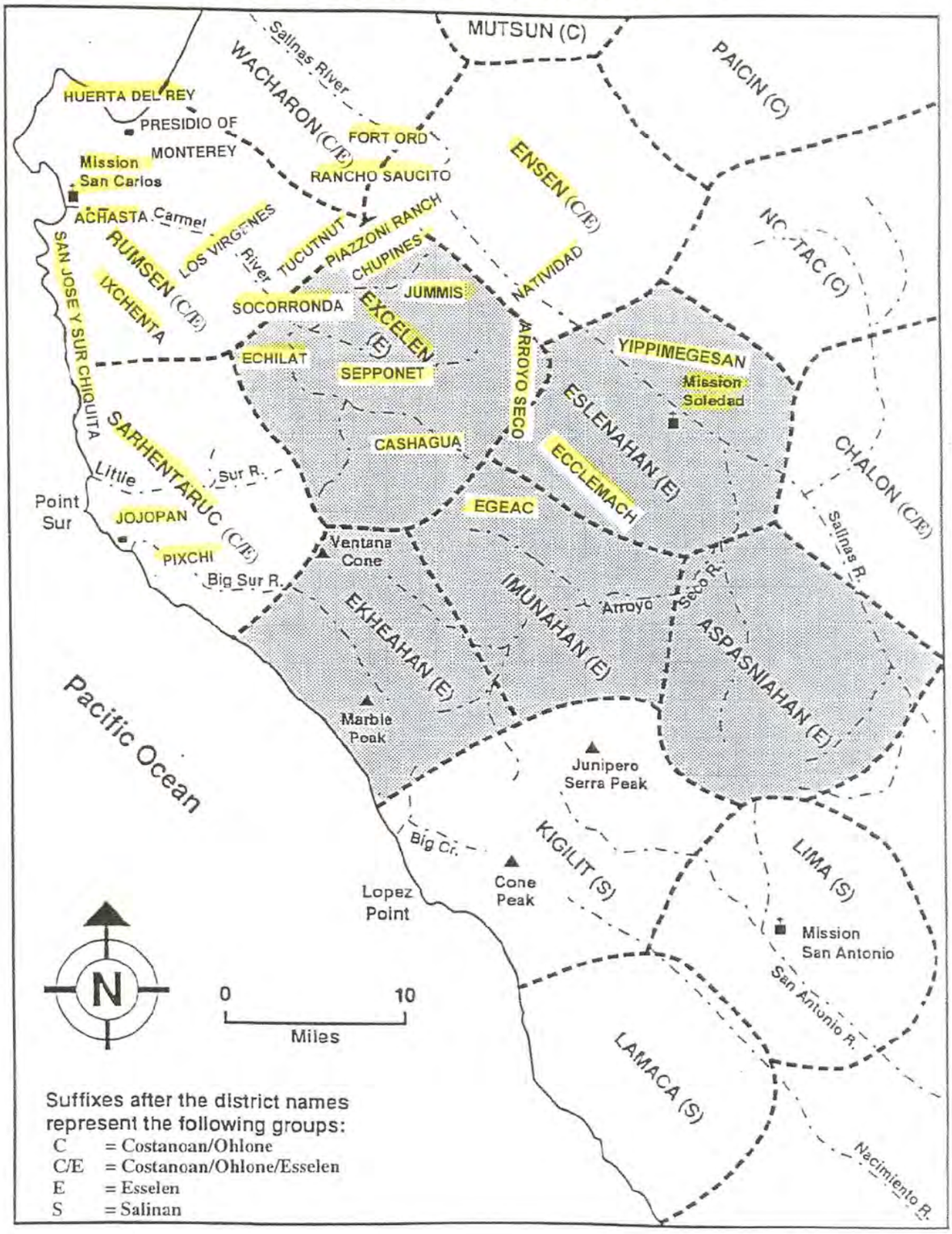


**Figure 2:**

Map after Taylor 1856; Levy 1973; Hester 1978; Milliken 1990