Environmental Assessment

Description of Proposed Action and Alternatives

Pier and Support Facilities for Transit Protection System at U.S. Coast Guard Air Station/Sector Field Office

Port Angeles, Washington

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Department of the Navy

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United States Coast Guard

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Pier and Support Facilities for Transit Protection System at U.S. Coast Guard Air Station/Sector Field Office Port Angeles, Washington

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Abbreviations and Acronyms

AFF	Alert Forces Facility
AIRSTA/SFO	Air Station/Sector Field Office
AT/FP	Anti-Terrorism/Force Protection
BMPs	Best Management Practices
BV	Blocking Vessel
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cm	centimeter
CPB	Coastal Patrol Boat
CPO	Chief Petty Officer
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DFM	Diesel Fuel, Marine
DOPAA	Description of Proposed Action and Alternatives
EA	Environmental Assessment
EIS/OEIS	Environmental Impact Statement/Overseas Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
ft	foot/feet
ha	hectare
LEED	Leadership in Energy and Environmental Design
m	meter
MBTA	Migratory Bird Treaty Act
MFPU	Maritime Force Protection Unit
MLLW	mean lower low water
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAGPRA	Native American Graves Protection and Repatriation Act
NAVBASE	Naval Base
NAVFAC	Naval Facilities Engineering Command
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
OPNAVINST	Chief of Naval Operations Instruction
PoPA	Port of Port Angeles
psf	pounds per square foot
RSA	Ready Service Armory
RV	Reaction Vessel
SR	State Route
SSBN	Fleet Ballistic Missile Submarine
SV	Screening Vessel
SV-33	33 ft Screening Vessel
SV-64	64 ft Screening Vessel
SWPPP	Stormwater Pollution Prevention Plan
TPS	Transit Protection System
U&A	Usual and Accustomed

U.S.	United States
USC	U.S. Code
USCG	United States Coast Guard
USCGC	United States Coast Guard Cutter
WAC	Washington Administrative Code

1.0 Purpose of and Need for the Proposed Action

The United States (U.S.) Department of the Navy (Navy) is preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [USC] §4321-4370h), as implemented by the President's Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); Navy regulations for implementing NEPA (32 CFR Part 775); and Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, *Environmental Readiness Program*. The Navy has prepared this Description of the Proposed Action and Alternatives (DOPAA) document for initial public and agency review and comment.

The Navy proposes to construct a pier and support facilities at the U.S. Coast Guard (USCG) Air Station/Sector Field Office Port Angeles (AIRSTA/SFO Port Angeles) located in Clallam County, Washington. See Chapter 2 for a detailed description of the Proposed Action and Alternatives.

1.1 Introduction

Due to events surrounding the USS COLE in 2000, security is a concern for U.S. bases and assets. The Navy continues to increase security to protect its assets and critical support facilities, including its Fleet Ballistic Missile Submarines (SSBNs). As a result the Navy has substantially increased security for in-transit SSBNs by establishing a Transit Protection System (TPS) that relies on use of multiple escort vessels.

The TPS mission is to provide security escort to SSBNs along their transit route between their homeport at Naval Base (NAVBASE) Kitsap Bangor in Hood Canal to the points where the submarines dive or surface in the Strait of Juan de Fuca (submarines travel on the surface to and from NAVBASE Kitsap Bangor and the dive/surface points) (Figure 1-1). The TPS utilizes up to nine naval vessels including 250-foot (ft) (76-meter [m]) Blocking Vessels (BV), an 87 ft (26 m) Coastal Patrol Boat (CPB)/Reaction Vessel (RV), and 64 ft (19 m) Screening Vessels (SV-64) and 33 ft (10 m) Screening Vessels (SV-33).

The USCG is authorized by 14 USC 91 to control the anchorage and movement of vessels operating near a Navy vessel. As such, the USCG has implemented provisions to establish and enforce a Naval Vessel Protective Zone (33 CFR 165.2015) and Security Zone (33 CFR 165.1327).

The USCG has agreed to be a cooperating agency for the EA because of its jurisdiction by law and special expertise.

1.2 Location

USCG AIRSTA/SFO Port Angeles is located at the eastern end of the Ediz Hook peninsula. Ediz Hook lies entirely within the city limits of Port Angeles, Washington, which had a population of 19,190 in 2013. The project site is located on the northern coast of the Olympic Peninsula approximately 60 miles (96 kilometers) northwest of downtown Seattle, WA (Figure 1-2).

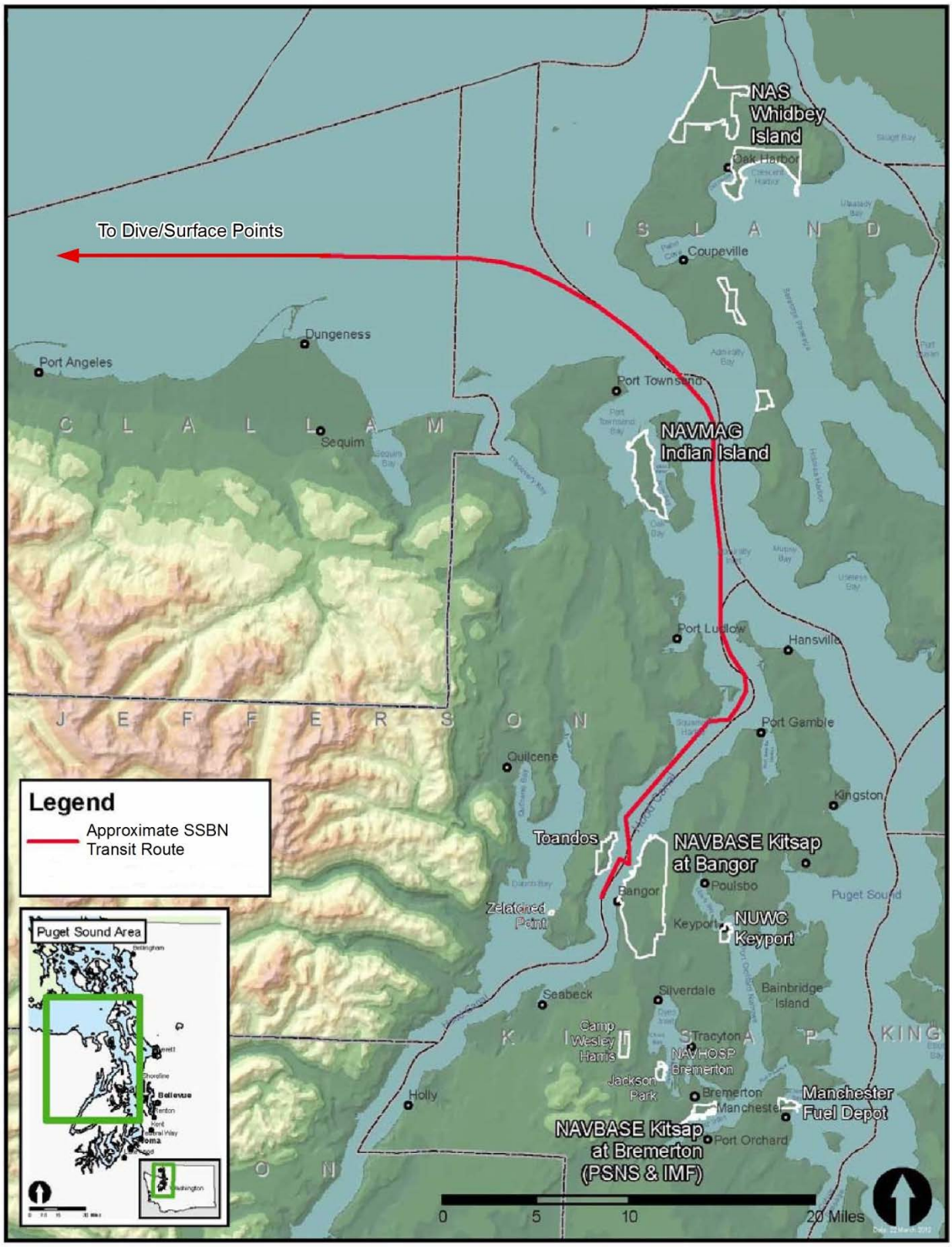


Figure 1-1. Approximate Transit Route

Figure 1-2. Vicinity Map

USCG AIRSTA/SFO Port Angeles is the USCG's oldest consistently operating air station in the nation, and was established in 1935. AIRSTA/SFO Port Angeles is responsible for maritime law enforcement and coastal waterway security, search and rescue operations, private and commercial boating and fishing safety, and maritime environmental protection. Their general operation area ranges from south of Whidbey Island to the eastern portions of the Strait of Juan de Fuca and the northwestern coast of the Olympic Peninsula.

AIRSTA/SFO Port Angeles has a 4,500 ft x 150 ft (1,372 m x 46 m) asphalt runway and 100 ft x 100 ft (30 m x 30 m) asphalt helipad dedicated to USCG use. The installation supports three full-time MH-65C dolphin helicopters with hangar and aircraft support facilities. There is an existing T-shaped Pier (T-Pier) for berthing USCG vessels. There is a complex of support buildings including a two-story group building, warehouse, maintenance building, retail exchange, medical/dental clinic, and officers lounge (Figure 1-3). AIRSTA/SFO Port Angeles provides personnel, supply, administration, naval and civil engineering, communications, and other support functions. There are more than 250 USCG personnel in seven units assigned to the installation. Access to the AIRSTA/SFO Port Angeles is via Marine Drive and Ediz Hook Road. The entrance to the installation is controlled through a gate and guardhouse with security fencing.

Ediz Hook is a narrow spit of land, with widths ranging from 90 to 750 ft (27 to 229 m), which juts 3.5 miles (5.6 kilometers) into the Strait of Juan de Fuca and forms the northern boundary of Port Angeles Harbor. Most of Ediz Hook outside of the AIRSTA/SFO Port Angeles is owned by the federal government and leased long-term to the City of Port Angeles. The Puget Sound Pilots Association has a pier with training and sleeping facilities (the Puget Sound Pilots Station) on the south shore of Ediz Hook just outside (west) of the main entrance gate to the installation. The spit is lined with public beaches, picnic spots, and parking areas, and there is a multi-use recreational trail that starts at the AIRSTA/SFO Port Angeles entrance gate and follows the shoreline around the harbor to the downtown Port Angeles waterfront. There is a public boat launch west of the Puget Sound Pilots Station and numerous public access points for hand-launched water craft, fishing, swimming, and scuba diving.

A seafood company has floating pens (commercial fish pens) for raising salmon in the harbor just south of the AIRSTA/SFO Port Angeles and supporting structures on land west of the public boat launch. The seafood company leases the site from the Washington Department of Natural Resources, which owns submerged lands in the harbor. The Lower Elwha Klallam Tribe owns Harbor View Park and an adjacent parcel west of the project site, and Port Angeles Harbor is within the Usual and Accustomed (U&A) fishing grounds and stations of the Lower Elwha Klallam, Jamestown S'Klallam, and Port Gamble S'Klallam Tribes.

1.3 Purpose and Need

The purpose of the Proposed Action is to provide a staging location for TPS vessels and crews that escort Navy submarines to and from their dive/surface points in the Strait of Juan de Fuca and NAVBASE Kitsap Bangor. The Proposed Action is needed to comply with USCG requirements for underway hour limitations and required crew rest between escort missions. Underway hours are defined as the time required for USCG crews to prepare for, perform, and complete small boat operations. The hour limits vary by boat size and type, and are shorter during high sea states and foul weather conditions.

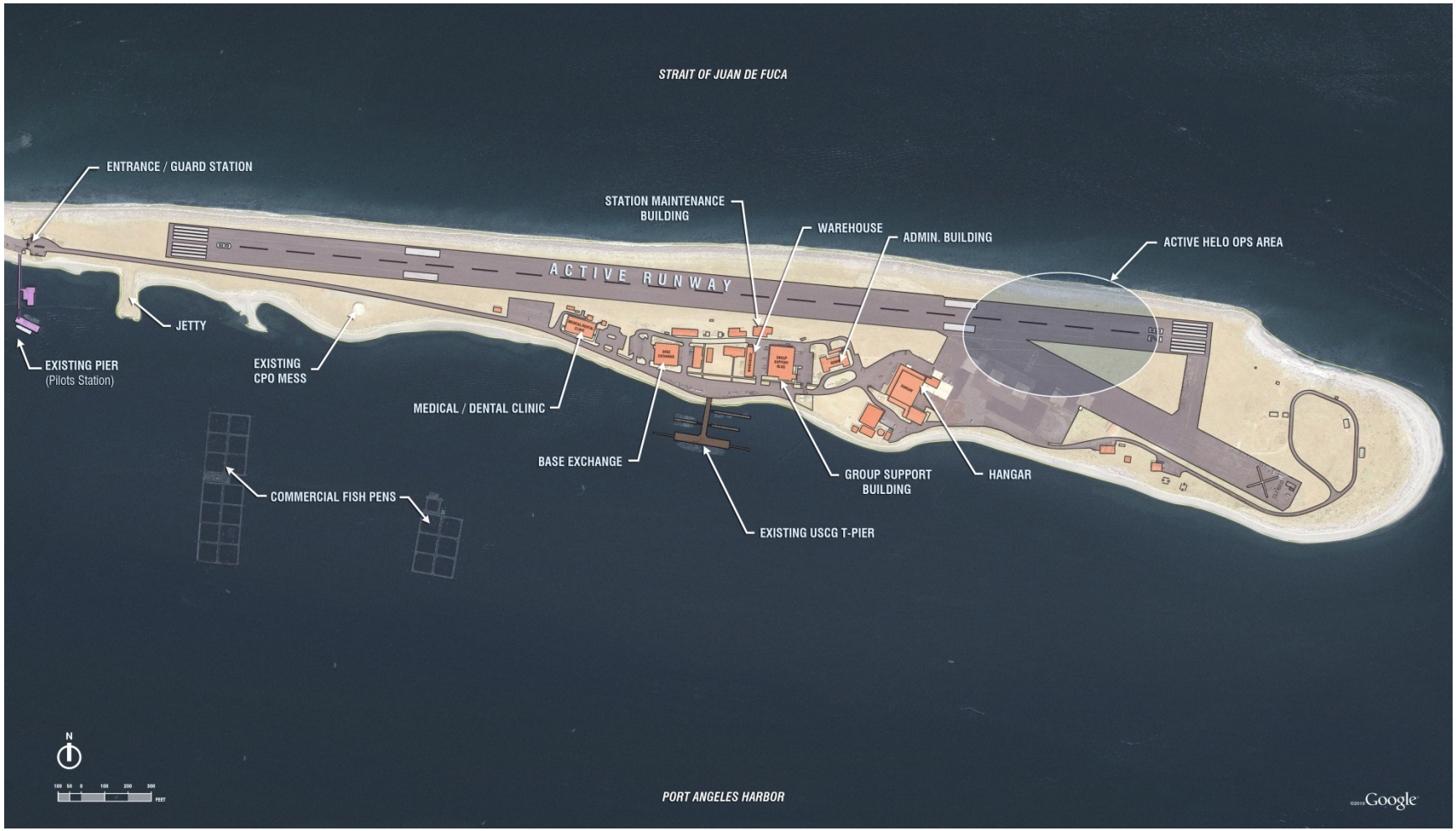


Figure 1-3. USCG AIRSTA/SFO Port Angeles Area Map

1.3.1 Current Operations

TPS vessels and personnel have operated out of temporary facilities and piers at NAVBASE Kitsap Bangor since 2006, which greatly limit their operational capability and efficiency. When available, they utilize temporary facilities and piers at the Port of Port Angeles (PoPA) and the AIRSTA/SFO Port Angeles. There is currently no dedicated berthing for any of the TPS vessels at Port Angeles.

The BVs berth at the PoPA Terminals 1 and 3 on a space available basis. Terminal 7 was used occasionally, but has recently been declared unavailable due to the deteriorating condition. BVs also occasionally berth at the USCG installation if the USCG Cutter (USCGC) Active berth at the T-Pier is available. The SVs berth at the PoPA Boat Haven at the transient pier on a space available basis.

Under current conditions, there is an inability for the USCG crews to operate at full capability. Crews are routinely pushed to their endurance limits for multiple days at a time since there is no facility for crew berthing, operations planning, or weapons storage in Port Angeles. Waivers must be frequently granted in order to meet back-to-back missions, multiple schedule changes, and effects of adverse weather conditions to maintain national strategic requirements and meet safety policies and regulations. Granting of waivers is not sustainable in the long term.

Vessels expend significant amounts of fuel and time in transit to and from NAVBASE Kitsap Bangor and the dive/surface points.

1.3.2 Summary

There are a number of operational and cost advantages to having a facility in Port Angeles that stages the escort vessels in proximity of the dive/surface points in the Strait of Juan de Fuca. For example, the minimum turnaround times for missions can be reduced if crews and vessels do not have to return to NAVBASE Kitsap Bangor between missions, and fuel consumption can be significantly reduced. Accordingly, a dedicated facility in Port Angeles would enable crews to fulfill the mission of providing security support for transiting SSBNs within the policy and safety requirements established for the TPS.

1.4 Scope of Environmental Analysis

The environmental analysis presented in the EA will focus on the specific environmental resources and topics that could reasonably be affected by the Proposed Action. Only those resources with a potential for impacts will be included in the EA. The environmental resource areas analyzed in the EA will include: air quality, water quality and sediments, biological resources, American Indian traditional resources, noise, land use, socioeconomics and fisheries, environmental justice, marine traffic and transportation, shore traffic and circulation, recreation resources, visual resources, solid and hazardous waste, public health and safety, and utilities.

The impacts of TPS vessel movements on marine traffic and other resources are addressed in the *Northwest Training and Testing Activities Supplement to the Draft Environmental Impact Statement/Overseas Environmental Impact Statement* (EIS/OEIS) (NAVFAC Northwest 2014) and are incorporated herein by reference.

There are no wetlands on the three alternative sites; thus, wetlands will not be addressed in the EA.

1.5 Relevant Laws and Regulations

In addition to NEPA, CEQ, and Navy regulations, the Navy will prepare the EA integrating other federal and state laws, statutes, regulations, and policies that are relevant to the implementation of the Proposed Action including, but not limited to the following:

- Clean Air Act (CAA) (42 USC 7401 *et seq*.)
- Clean Water Act (CWA) Sections 404 and 401 (33 USC 1251 *et seq*.)
- Coastal Zone Management Act (CZMA) (16 USC 1451 *et seq*.)
- National Historic Preservation Act (NHPA) (54 USC 306108)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- Endangered Species Act (ESA) (16 USC 1531 *et seq*.)
- Energy Policy Act of 2005
- Energy Independence and Security Act of 2007
- Marine Mammal Protection Act (MMPA) (16 USC 1361 *et seq*.)
- Migratory Bird Treaty Act (MBTA) (16 USC 703-712)
- Bald and Golden Eagle Protection Act (16 USC 668-668d)
- Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC § 1801-1882)
- Submerged Lands Act (43 USC 1301 *et seq*.)
- Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-income Populations*
- EO 12088, *Federal Compliance with Pollution Control Standards*
- EO 13148, *Greening the Government through Leadership in Environmental Management*
- EO 13175, *Consultation and Coordination with Indian Tribal Governments*
- Washington State Shoreline Management Act

A description of the Proposed Action's consistency with these regulations and policies, as well as regulatory agencies responsible for their implementation, is presented in Chapter 5 (Table 5-1).

1.6 Public Involvement

Regulations from the Council of Environmental Quality (40 CFR 1506.6) direct agencies to involve the public in preparing and implementing their NEPA procedures. The Navy is currently soliciting public and agency comments on this DOPAA from January 26, 2015 through February 25, 2015.

The Navy will host a public meeting in Port Angeles, WA on February 5, 2015 at the Naval Elks Lodge #353, 131 E. 1st Street, to provide information about the Proposed Action. This meeting will not include a formal presentation; however, Navy and USCG personnel will be present at this open house to answer questions and receive written comments. To be considered in preparation of the Draft EA, comments must be received by Wednesday, February 25, 2015.

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The Navy proposes to construct a pier, an Alert Forces Facility (AFF) (single-story sleeping and administration building); a Ready Service Armory (RSA) (an ammunition and weapons storage facility); diesel fuel, marine (DFM) storage tank and distribution system; and site improvements including utilities, parking, lighting, security improvements, and landscaping at the USCG AIRSTA/SFO Port Angeles to support the USCG Maritime Force Protection Unit (MFPU) mission. The TPS pier would be designed to provide full hotel services (hotel services include electricity, potable water, sewer, internet, phone, fire protection, pier lighting, and fueling lines) and dedicated mooring for up to seven TPS vessels. Construction of the project is anticipated to start in the summer of 2016 and last approximately two years. The new pier and support facilities would have a design life of 50 years.

2.2 Selection Criteria

NEPA's implementing regulations provide guidance on the consideration of alternatives to a federally Proposed Action and require rigorous exploration and objective evaluation of reasonable alternatives. Only those alternatives determined to be reasonable and meet the purpose and need require detailed analysis.

Potential alternatives that meet the purpose and need were evaluated against the following selection criteria:

- Proximity to the Strait of Juan de Fuca (location of the dive/surface points) to remain within the crew endurance limits.
- Provide dedicated berthing for TPS vessels 24 hours a day, 7 days a week.
- Locate on property owned or controlled by the federal government.
- Comply with physical security requirements for the TPS mission.
- Avoid adversely impacting existing USCG search and rescue operations.
- Ability to utilize existing facilities and utilities infrastructure.
- Provide personnel support activities for TPS crews including access to recreation, medical/dental services, retail, and other services on the installation.
- Avoid or minimize environmental impacts to the maximum extent practicable.

2.3 Reserved for Future Use

2.4 Alternatives

The Navy is currently considering three action alternatives for analysis in the EA that meet the purpose and need. As the Navy proceeds with the environmental planning process and development of the Draft EA, alternatives may change due to environmental analysis, design and/or operational issues, and input from agencies, governments, tribes, and the public. The three action alternatives are located at AIRSTA/SFO Port Angeles. Alternative 1, Western Site, is located on the west end of AIRSTA/SFO Port Angeles. Alternative 2, Eastern Site, is located on the east end of the installation. Alternative 3, T-Pier Site, is located in the middle of the installation at the existing USCG Small Boat Station's T-Pier. The location of the alternatives is shown in Figure 2-1. Components of the action alternative(s) may be placed on submerged lands owned by the Washington Department of Natural Resources. Under the Submerged Lands Act, the United States may use submerged lands without an underlying interest in the

property for inter alia national defense purposes. As suggested by CEQ guidelines, the Navy will carry the No Action Alternative forward for analysis. The No Action Alternative will serve as the baseline for the analysis in the EA.

The three action alternatives have several project elements in common and differ primarily in where they would be located on the installation. The following project elements are common to all three action alternatives:

- A pier consisting of a floating pontoon and supporting piles, plus an access trestle (the design of the pier/pontoon would differ between alternatives);
- Full hotel services on the TPS pier (e.g., power, water, sewer, and phone);
- Dedicated berthing for up to seven TPS vessels;
- An AFF with offices, mission briefing areas, and sleeping facilities for 20-30 personnel;
- RSA for ammunition and weapons storage;
- Fuel storage and distribution system, including an above ground DFM storage tank;
- Associated site improvements including utilities, parking, lighting, security improvements, and landscaping; and
- Anti-Terrorism/Force Protection (AT/FP) security features.

2.4.1 Alternative 1: Western Site

Transit Protection System Pier

Alternative 1 would be located at the western end of AIRSTA/SFO Port Angeles near the entrance gate and existing rock riprap jetty (Figures 2-1 and 2-2). It is anticipated that the jetty would require refurbishment to be used as the approach road to the TPS pier. The jetty would be widened and the grade altered to transition the approach road from the trestle to the shore road, requiring the addition of fill. It is anticipated that metal sheet piles would be installed around the perimeter of the jetty (between the jetty and the rock seawall) to retain the fill material. The finished road would slope back from the trestle at a 3.3 percent grade. Utility lines including potable and fire flow water, sewer, fuel, phone lines, and electrical would be placed underground. The approach road would be paved with asphalt or concrete and lined with concrete vehicle barriers on both sides for safety.

The TPS pier would consist of a floating pontoon with a fixed trestle and movable transfer span (Figure 2-3). The trestle would be approximately 55 ft (17 m) long and 24 ft (7 m) wide and constructed of precast concrete. It would connect the jetty and provide the anchoring point for the transfer span. The end of the jetty is currently protected with a timber bulkhead capped by a concrete slab. To install the trestle, the existing timber bulkhead and concrete slab would be removed, the end of the jetty would be re-graded, and sheet piles would be installed to protect the slope. There would also be two floating docks for small boats, each sized 164 ft x 12 ft (50 m x 3.6 m).

The trestle is estimated to be supported by six 24-inch (61-centimeter [cm]) steel pipe piles (three in-water and three upland piles) with precast concrete caps. The trestle would be designed to support a 50 pound per square foot (psf) live load or a utility trailer with a total load of 3,000 lbs. Concrete vehicle barriers would extend from the jetty onto both sides of the trestle. A security gate with fencing and an automated vehicle gate and personnel turnstile would be erected across the trestle for access control. The security fencing would be approximately 7 ft (2 m) high and topped with barbed wire. Barbed wire would also be placed around the sides and bottom of the gate, which would extend out past the sides of the trestle.

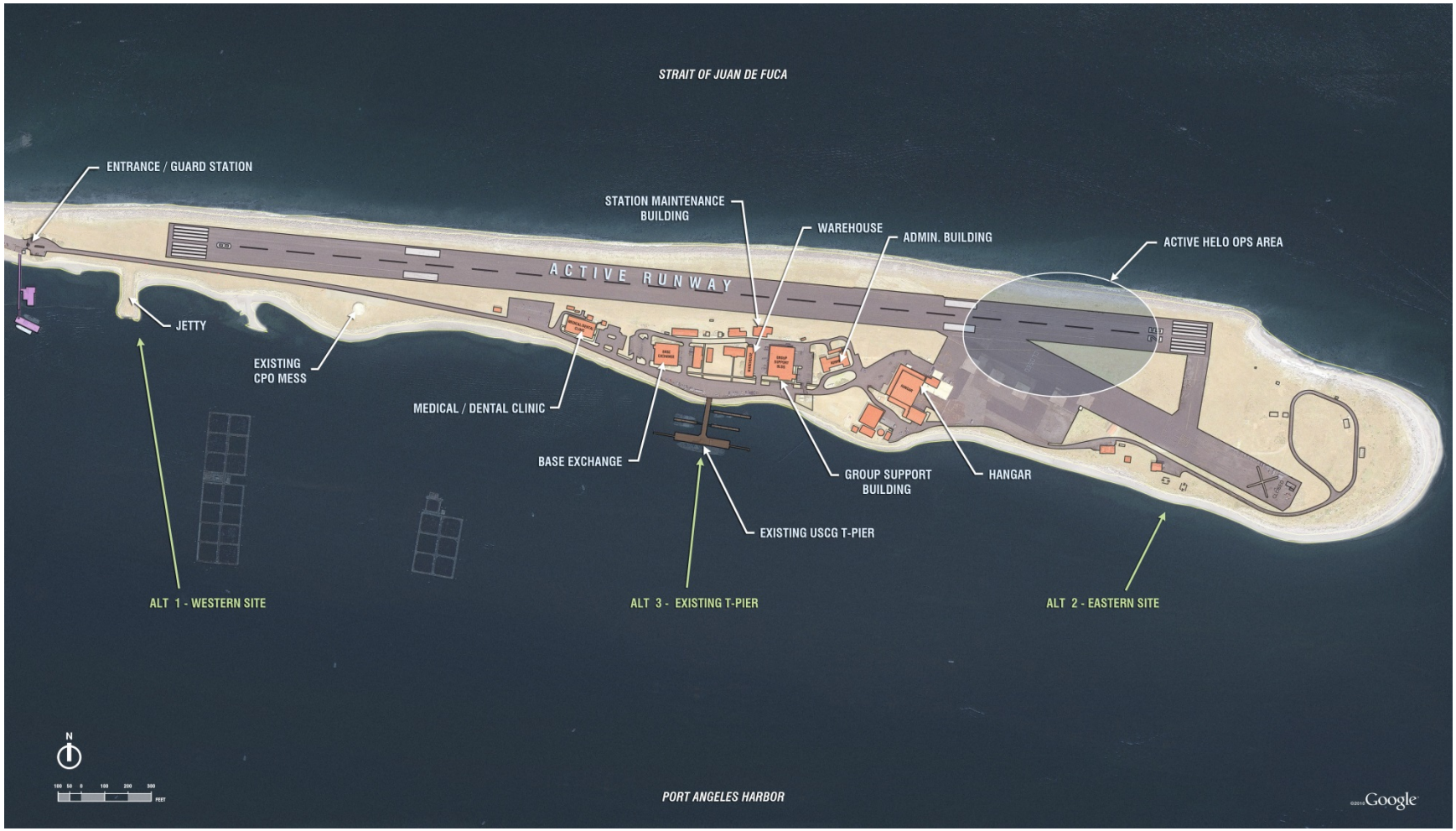


Figure 2-1. Alternatives

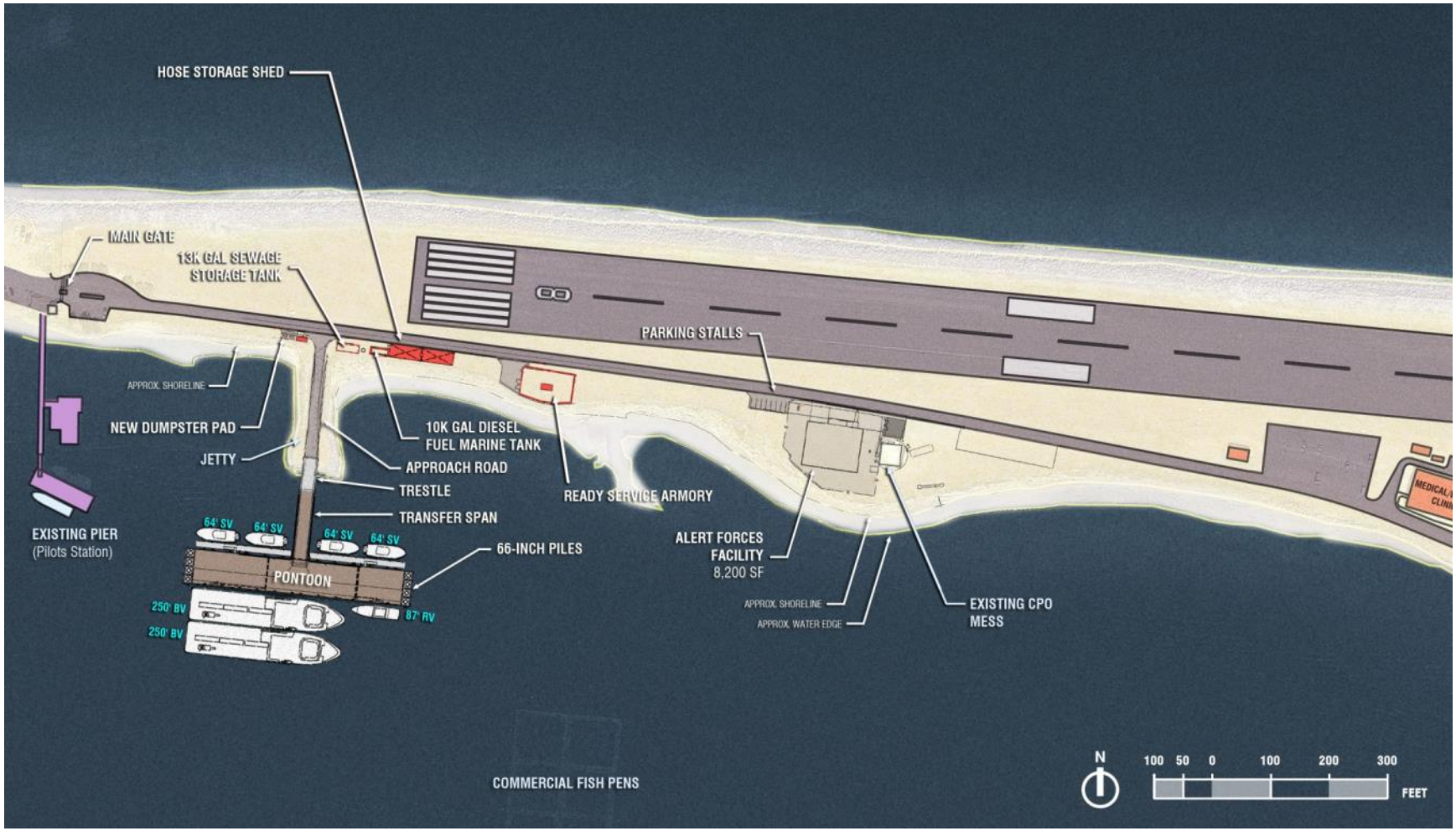


Figure 2-2. Alternative 1 - Western Site

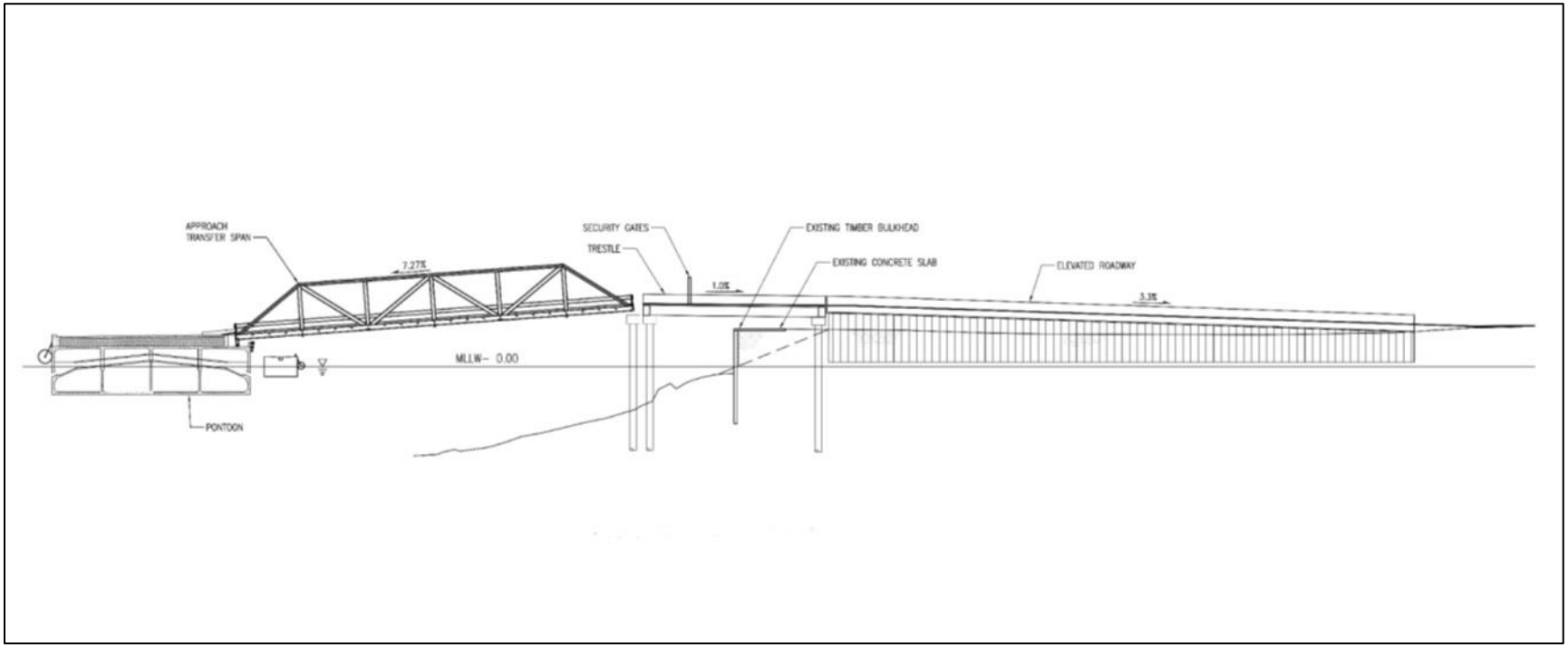


Figure 2-3. Trestle, Approach Span, and Floating Pontoon

The transfer span would connect the trestle to the floating pontoon and would move vertically and horizontally with the tide (Figure 2-3). The transfer span would be approximately 120 ft (36 m) long and 26 ft (8 m) wide. The trestle and transfer span would be constructed roughly between -2 ft (-0.6 m) mean lower low water (MLLW) and -65 ft (-20 m) MLLW. The transfer span would likely consist of steel trusses and a concrete and steel deck on steel beam deck framing supported by a concrete cap and three 24-inch (61-cm) steel pipe piles on the shore end. The trestle and transfer span would provide vehicle and pedestrian access to the floating pontoon and carry utilities to service six berths.

The floating pontoon would be a new or refurbished pontoon (there is the possibility of acquiring a used pontoon from the State Route (SR) 520 floating bridge replacement project and recycling it for this purpose). The pontoon from the SR 520 project would be approximately 360 ft by 60 ft (110 m by 18 m) (if a new pontoon is purchased it would be approximately 360 ft by 50 ft [110 m by 15 m]) and be anchored by eight 66-inch (168-cm) steel piles, four on each end (Figure 2-3). The pontoon would be placed approximately between -40 ft (-12 m) and -60 ft (-18 m) MLLW. Anticipated vessel mooring is depicted on Figure 2-2 and would accommodate up to seven TPS vessels: two BVs, one RV, and up to four SV-64s.

The pier would have full hotel services at each of the six berths including power, potable water, fire protection, sewage connections, ship overboard drainage collection, fueling connections, telephone and Local Area Network service. The pier would also be equipped with lighting, intrusion detection, mooring, fendering, brows (gangways), corrosion protection systems, and stormwater protection systems.

It is anticipated that eight 66-inch (168-cm) steel piles would be placed on the ends of the proposed floating pontoon – four on each side. An additional six 24-inch (61-cm) steel pipe piles for the trestle and three 24-inch (61-cm) steel pipe piles for the transfer span would anchor those structures to the seafloor (three of the trestle piles would be on shore). The piles for the trestle, transfer span, and pontoon would cover approximately 209 ft^2 or 0.0048 acre (19.4 m^2 or 0.0019 hectare [ha]) of the seafloor. The trestle, transfer span, floating pontoon, and floating docks for small boats would result in a permanent increase in overwater coverage of approximately 29,976 ft^2 or 0.688 acre (2,785 m^2 or 0.278 ha).

All of the piles for the trestle, transfer span, and floating pontoon would be hollow steel, and would be installed using vibratory and impact pile driving methods. Vibratory pile driving involves hydraulic-powered weights to vibrate a pile until the surrounding sediment liquefies, enabling the weight of the pile plus the pile driver to push the pile into the ground. Once a pile hits “refusal”, which is where hard dense substrate (i.e., gravel, boulders,) prevents further pile movement by vibratory methods, impact pile driving is used to drive the pile to depth. Impact hammer pile driving uses a rising and falling piston to repeatedly strike a pile and drive it into the ground. The number of strikes would vary and depend upon the substrate at each pile location and the pile size.

In-water construction would begin in the summer of 2016. In-water construction would observe the Puget Sound Tidal Reference Area in-water work window (July 16 through February 15) to minimize impacts to salmon and bull trout. The construction equipment barge would likely be lit with industrial lighting during non-daylight hours for safety.

Alert Forces Facility

The AFF would consist of an approximate 8,200 ft^2 (762 m^2) single-story building constructed approximately 800 ft (244 m) east of the jetty and adjacent to the Chief Petty Officer (CPO) mess building (Figure 2-2). The AFF would provide offices and living facilities for approximately 20-30 personnel including sleeping rooms, bathrooms, lockers and laundry facilities,

telecommunications room, kitchen, office spaces, and mission briefing areas. The AFF is anticipated to be constructed with reinforced concrete masonry unit blocks supported by steel columns and beams, and would be approximately 21 ft (6.4 m) high. The facility would be designed to meet Leadership in Energy and Environmental Design (LEED) Silver requirements, the Energy Policy Act of 2005, and Energy Independence and Security Act of 2007. The facility would provide security features in accordance with AT/FP regulations.

The AFF would include a parking area west of the building. The facility would displace existing parking spaces for the CPO mess, which would be replaced with a new parking area east of the AFF and CPO mess. New parking areas would be constructed of pervious pavement.

Ready Service Armory

An RSA is a 10 ft by 20 ft (3 m by 6 m) pre-made structure with an intrusion detection system used to store weapons and ammunition. The RSA would be located approximately 160 ft (49 m) east of the jetty (Figure 2-2). A concrete pad would be poured and the RSA would be affixed to the pad. A security fence would be installed around the RSA.

Fuel Storage and Distribution System

It is anticipated that a fuel storage and distribution system would be installed on AIRSTA/SFO Port Angeles to provide a small craft ready fuel supply to the TPS pier. An above-ground 10,000 gallon DFM storage tank would be located approximately 80 ft (24 m) east of the jetty (Figure 2-2). The system would include piping and appurtenances to enable the storage tank to be filled by tanker trucks, secondary containment structures, a piping distribution network, and hose reels on the pier for vessel fueling. The tank would be double-walled and placed on a concrete pad of approximately 8 ft x 27 ft (2.4 m x 8 m). The pad would have curbing to contain any spills. A fuel truck parking area would be constructed adjacent to the DFM storage tank on the east side and would be 100 ft x 20 ft (30 m x 6 m) in size. This parking area would be impervious and equipped with an oil/water separator to treat stormwater runoff.

Site Improvements

Site improvements include sewer and water utility connections/installation, stormwater facilities (including an outfall), electrical, lighting, fire protection systems, alarms, pedestrian walkways, roadways, signage, and landscaping. Just to the west of where the jetty meets the shoreline would be the approximate location of a hose storage shed, electrical service equipment vault, and a dumpster.

To the east of the jetty would be an approximately 13,000-gallon sewer tank for temporary storage of sanitary sewage coming from the pier (Figure 2-2). A portable standby generator would be provided at the pier in the event of a power outage. This generator would provide power to operate the sewage pumps, leak detection systems, gate controls, security equipment, lighting and the DFM storage tank.

Road surfaces would be paved with pervious asphalt where possible (for example on the jetty approach and at the parking area for the AFF). Other road surfaces would use impervious asphalt or concrete. Pedestrian walkways (there would be walkway from the jetty to the AFF) would be paved with porous concrete or asphalt and be approximately 5 ft (1.5 m) in width. There would be approximately 10,700 ft^2 (994 m^2) of new impervious surface created (paving for the parking areas and road improvements and the roof of the AFF facility) and approximately 5,200 ft^2 (483 m^2) of existing impervious surface removed by implementing Alternative 1. The net increase in impervious surface is approximately 5,500 ft^2 or 0.13 acre (511 m^2 or 0.05 ha).

Landscaping would likely consist of a vegetated strip between the road and pedestrian walkway that connects the AFF to the pier and around the AFF. Areas disturbed by construction would be restored. No irrigation system is proposed.

Excavation would be necessary for installing the underground sewage storage tank and underground utilities. Imported structural fill would be required for the jetty improvements and may be used to backfill utility trenches and the sewage storage tank excavation. There would also be some pavement next to the CPO mess that would be torn up and removed to make way for the AFF building. Minimal site grading would also be necessary.

2.4.2 Alternative 2: Eastern Site

Alternative 2 would be similar to Alternative 1 with the main difference being in the location of the pier and upland support facilities and the addition of a wave attenuation structure (Figures 2-4 and 2-5). This site would be located approximately 1,000 ft (305 m) to the east of the existing T-Pier. The TPS Pier system would be similar to Alternative 1 (consisting of a trestle, transfer span, and floating pontoon), except the transfer span would connect to the eastern end of the pontoon to create an L-shaped design. This alternative would not require demolition of any in-water structures.

As part of the pier system, it is anticipated that a wave attenuation structure (wave screen) would be constructed to provide protection from severe storm events and be installed to the east of the pier system (Figure 2-5). It would be placed approximately between -35 ft (-11 m) MLLW and -86 ft (-26 m) MLLW. The wave screen is expected to be composed of vertical H-piles (a steel H-beam used as a pile) driven into the seafloor. It would be approximately 200 ft long (61 m) and fixed in place with 20 pairs of piles (40 piles total) topped by precast concrete pile caps and connected by concrete wave panels placed between the piles. The wave panel walls would extend deep enough to absorb waves, but not extend to the seafloor itself (not less than 2.5 ft (0.8 m) from the seafloor).

The piles for the trestle, transfer span, and pontoon would cover approximately 218 ft^2 or 0.005 acre (20.2 m^2 or 0.002 ha) of the seafloor. The trestle, transfer span, floating pontoon, and breakwater would result in a permanent increase in overwater coverage of approximately 27,640 ft^2 or 0.63 acre (2,568 m^2 or 0.256 ha).

The upland facilities (AFF, RSA, DFM storage tank, and hose storage) would be located east of the trestle, near the end of the old taxiway. These facilities would be the same size and perform the same functions as described above for Alternative 1 (Table 2-1). Other site improvements and utilities would be similar to Alternative 1, except utility runs would be longer to reach the existing utility infrastructure.

2.4.3 Alternative 3: T-Pier Site

Alternative 3 would construct an extension of the existing T-Pier to provide additional berthing (Figure 2-6). The main components would be similar to Alternatives 1 and 2; however, the trestle would extend from the T-Pier, and the transfer span would connect the trestle to the floating pontoon. There would also be small boat floating docks. The trestle would be approximately 190 ft x 23 ft (58 m x 7 m) and require approximately 20 piles. The transfer span would be the same size as proposed for Alternatives 1 and 2. The extension of the pier would result in the pontoon being located in deep water (too deep to use piles to anchor the pontoon); thus, the pontoon would be anchored to the seafloor using a cable stayed system attached to four anchors (similar to what is used for the SR 520 floating bridge). The anchors would be roughly 40 ft (12 m) in diameter and constructed of concrete. The extension would provide berthing for TPS vessels and the 210 ft (64 m) USCGC Active.

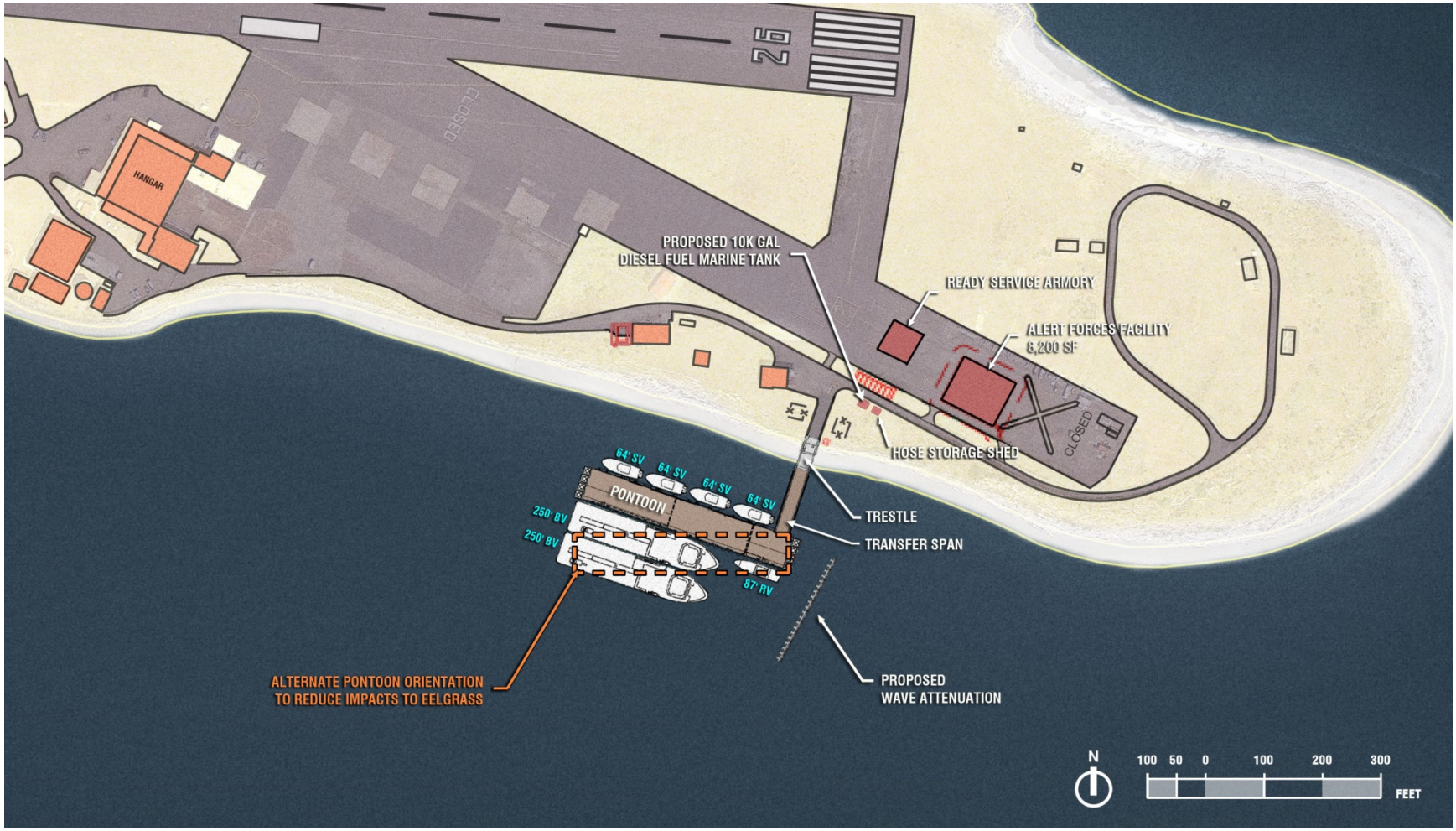
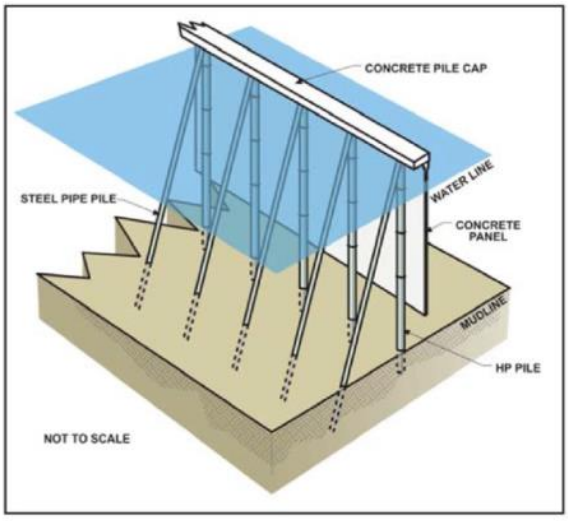
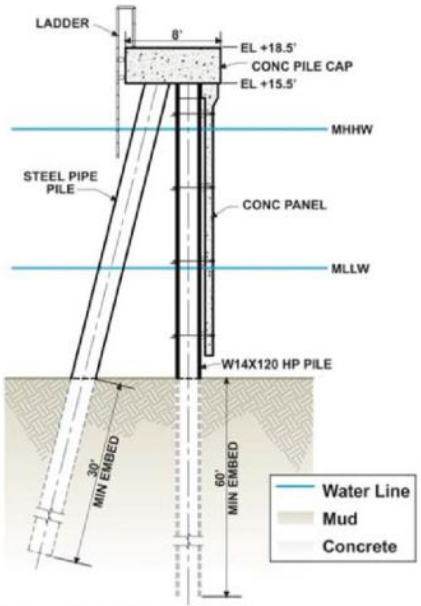
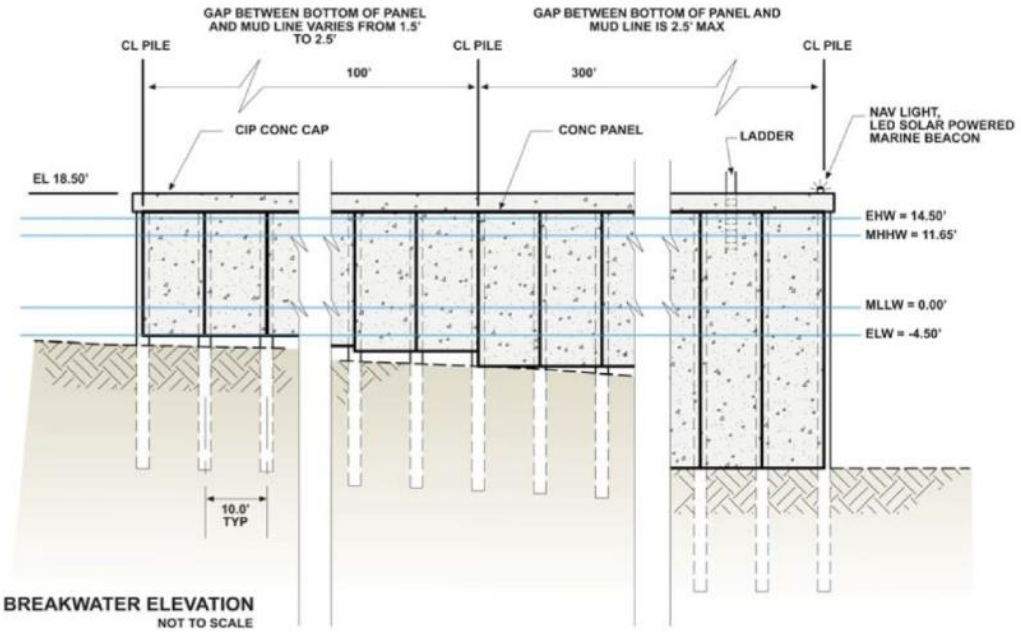


Figure 2-4. Alternative 2 - Eastern Site





BREAKWATER SECTION
NOT TO SCALE



BREAKWATER ELEVATION
NOT TO SCALE

Figure 2-5. Breakwater Sections and Elevations

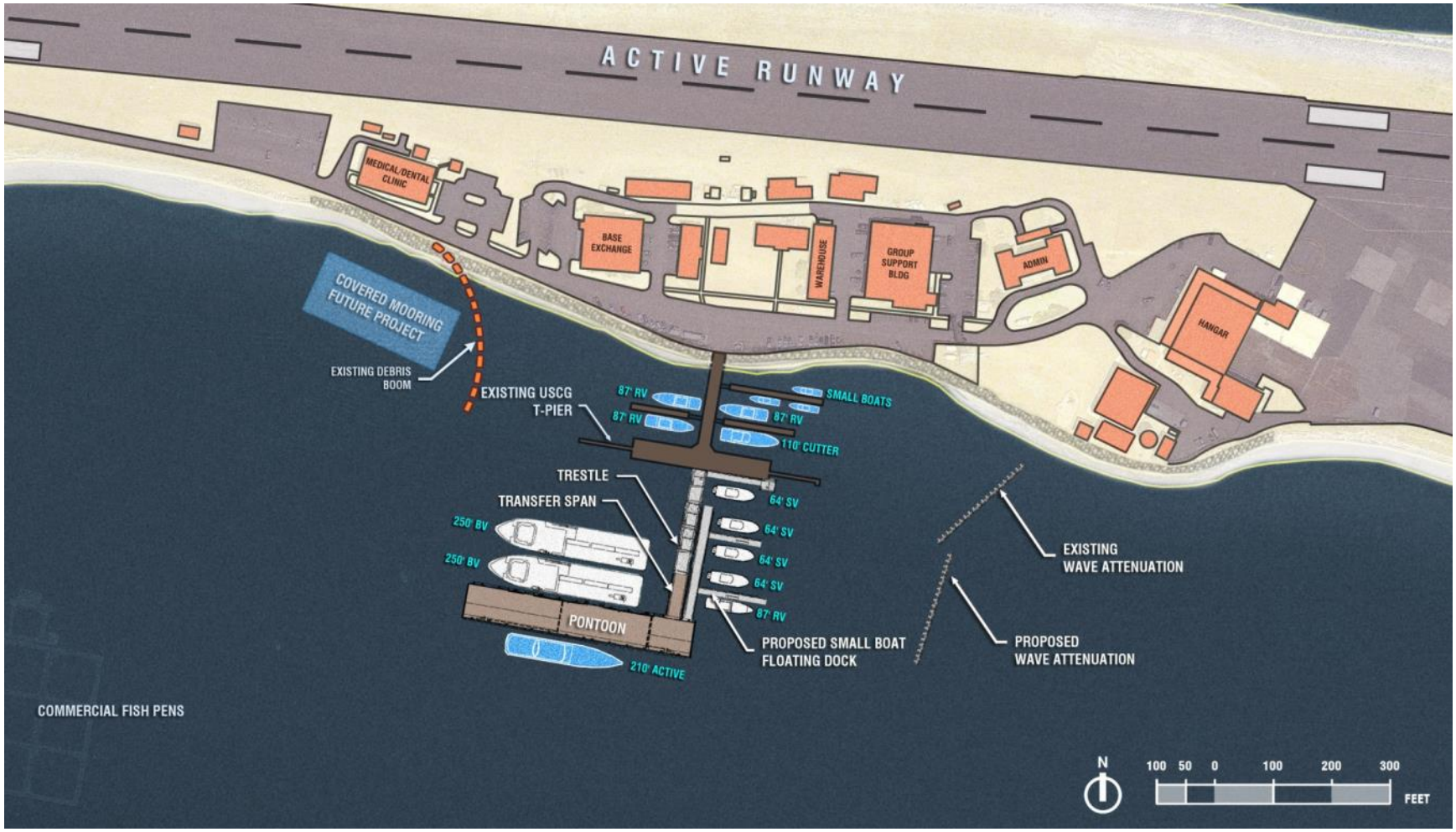


Figure 2-6. Alternative 3 - Existing T-Pier

A new wave attenuation structure (similar to that described under Alternative 2) would be constructed south of the existing wave attenuation structure to provide protection to the new pier extension from severe storm events (Figure 2-6).

The piles for the trestle and transfer span and anchors for the pontoon would cover approximately 5,089 ft^2 or 0.1168 acre (473 m^2 or 0.047 ha) of the seafloor. The trestle, transfer span, small boat floating dock, floating pontoon, and breakwater would result in a permanent increase in overwater coverage of approximately 32,090 ft^2 or 0.736 acre (2,981 m^2 or 0.298 ha).

This alternative would also require extensive improvements to the existing T-Pier to provide a 50-year design life. The existing wood piling and wood decking and railings would need to be replaced. It is estimated that approximately 50 of the 24-inch (61-cm) wood piles would be replaced with 24-inch (61-cm) steel piles in addition to the wood decking/railings, which would be replaced in kind.

The AFF and DFM storage tank would be similar in size and function as that described for Alternative 1. The AFF and RSA would be located at the western site (as in Alternative 1), west of the T-Pier (Figure 2-2). At this time, the site for the DFM fuel distribution and storage tank has not been identified, but it is anticipated that it would be sited in a previously disturbed area close to the T-Pier.

The construction schedule for this alternative would likely extend longer due to construction constraints required to ensure that the USCG could continue to meet its existing mission during renovations at the T-Pier and new construction. Other aspects of Alternative 3 would be similar to Alternative 1 (Table 2-1).

2.4.4 Comparison of Site Features

Table 2-1 below provides a comparison of the general site features for each alternative.

Table 2-1. Comparison of Site Features

	Alternative 1 Western Site	Alternative 2 Eastern Site	Alternative 3 T-Pier Site
Trestle	55 ft x 24 ft	55 ft x 24 ft	190 ft x 23 ft
Transfer Span	120 ft x 26 ft	120 ft x 26 ft	120 ft x 26 ft
Floating Pontoon*	360 ft x 60 ft	360 ft x 60 ft	360 ft x 60 ft
Small Boat Floating Docks	164 ft x 12 ft (x2)	N/A	120 ft x 12 ft
Wave Attenuation Structure	N/A	200 ft x 8 ft	200 ft x 8 ft
Overwater Coverage	29,976 ft^2 (0.69 acre)	27,640 ft^2 (0.63 acre)	32,090 ft^2 (0.74 acre)
Structure Coverage on Seabed	209 ft^2	218 ft^2	5,089 ft^{2**}
Alert Forces Facility	8,200 ft^2	8,200 ft^2	8,200 ft^2

**Assumes use of a refurbished pontoon from the SR 520 bridge – if a new pontoon is acquired it would be approximately 360 ft long and 50 ft wide.*

***Includes anchors for floating pontoon.*

2.4.5 No Action Alternative

Under the No Action Alternative, the Navy would not construct a permanent TPS pier and upland facilities at USCG AIRSTA/SFO Port Angeles. The No Action Alternative consists of continued operations at NAVBASE Kitsap Bangor and use of temporary facilities and piers at AIRSTA/SFO Port Angeles and the PoPA. The USCG cannot sustain full mission coverage with interim and temporary facilities due to underway hour limitations, policies, and regulations. The Navy has determined that the No Action Alternative would not comply with the Navy's security and TPS mission requirements and would therefore not meet the purpose and need. The EA will analyze the environmental effects of the No Action Alternative as suggested by the CEQ regulations set forth in 40 CFR 1502.14(d).

2.5 Design Measures, Current Practices, and Best Management Practices (BMPs)

Integrated into the project are design features and measures to avoid environmental impacts. Where avoidance is not possible, the design has been modified to minimize those impacts. Implementation of the action alternatives would include incorporation of the following design measures, current practices, and construction BMPs to avoid or minimize any potential environmental impacts.

Design Measures

- The trestle, transfer span, and floating pontoon would be designed to minimize the amount of disturbance to the seabed and amount of overwater shading as much as practical.
- Stormwater from the transfer span and pier would be collected and treated.
- Pervious pavement over crushed stone infiltration beds would be implemented as much as possible to reduce stormwater runoff and allow natural infiltration to take place. This includes new parking areas and pedestrian walkways.
- Stormwater runoff from the roof of the AFF would be routed to the ground and infiltrated.
- The AFF would be designed to LEED Silver standards, which requires that the building be constructed in an environmentally responsible way for sustainability. This includes the use of recycled material and facilities that save water and energy, management of stormwater runoff, and measures to manage waste.

Current Practices

- In-water construction would observe the Tidal Reference Area 10 in-water work window (July 16 through February 15).
- The use of bubble curtains to minimize the noise from pile driving would be considered.
- Spills would be handled according to applicable laws and regulations.
- To reduce the likelihood of any petroleum products, chemicals, or other toxic or deleterious materials from entering the water, fuel hoses, oil or fuel transfer valves and fittings would be checked regularly for drips or leaks, and would be maintained and stored properly to prevent spills.
- A Hazardous Materials Management Plan would be developed to provide guidance for handling, storage, and disposal of hazardous materials.

Construction BMPs

- Measures would be implemented to avoid anchor dragging and line dragging during construction.
- Construction vessels would be excluded from shallow areas (less than 30 ft [9 m] in depth) outside the immediate construction site (within 150 ft [46 m] of the trestle or pier).
- Within the immediate construction site:
    - Vessel operators would be instructed to avoid using excess engine thrust in waters less than 30 ft (9 m).
    - Vessel operators would be instructed to avoid bottoming out (running aground) in shallow areas.
    - Work barges would not be allowed to ground out or rest on the substrate, or be over or within 25 ft (7.6 m) of vegetated shallows (except where such vegetation is limited to state designated noxious weeds).
    - Barges would not be anchored over vegetated shallows for more than 96 hours (four days).
- All equipment (except for clamshell buckets and spuds required to remove piles) would be kept out of the water to minimize and prevent contaminant releases.
- To the maximum extent practicable, a vibratory hammer would be used for the pile driving actions; however, it would be necessary to use an impact hammer to proof the piles.
- Temporary barriers (silt curtains) may be installed to control the spread of silt from pile driving, though their efficacy would be strongly influenced by wind, current, and wave conditions at the site.
- A Debris Management Plan and Spill Response Plan to retrieve and clean up any accidental spill and construction debris would be developed and implemented. Personnel would be trained in hazardous material handling and spill response, and would be equipped with all necessary response tools, including absorbent oil booms. In the event of a spill, spill cleanup and containment efforts would begin immediately and take precedence over normal work.
- During in-water and overwater work, containment booms and absorbent booms (or other oil-absorbent fabric) would be placed around the perimeter of the work area to capture wood debris, oil, and other materials if released into marine waters. All accumulated debris would be collected and disposed of at an approved upland site. Following completion of in-water construction activities, an underwater survey would be conducted to remove any lost construction materials.
- Fuel hoses and oil or fuel transfer valves and fittings on equipment would be inspected regularly for drips or leaks in order to prevent spills into the surface water. Spill containment booms and absorbent materials would be kept readily available at all times during in-water and over water work.
- If required, water quality monitoring for turbidity and other water quality parameters would be completed to ensure construction activities are in compliance with Washington State Surface Water Quality Standards (173-201A Washington Administrative Code [WAC]).

- A Stormwater Pollution Prevention Plan (SWPPP) would be implemented for construction and operation and include measures for avoiding or minimizing erosion and sedimentation.
- All chemicals, liquid products, petroleum products, and wastes present at the construction site would be covered and contained.
- Soil areas disturbed by grading would be restored.

2.6 Maintenance

Maintenance of the pontoon, transfer span, and trestle infrastructure would include routine inspections, repair, and replacement of facility components as required. Any extensive maintenance would incorporate the measures listed above under *Construction BMPs*.

The installed piles are designed to not require replacement during the design life of the structure. A protective coating and additional steel thickness would be installed on all piles to ensure that the piles would not need replacement. Annual inspections of the piles would verify the integrity of the structure. Maintenance would be performed on the protection system to ensure it continues to operate as designed. Maintenance would include, as necessary, repairing any damage to the coatings. Other actions would involve repairing the pile coating as it becomes worn.