

**DRAFT Environmental Assessment  
& Final Biological Assessment**

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**Fleet and Industrial Supply Center,  
Puget Sound Fuel Department  
300 FT. Small Boat/Barge Dock Replacement**

**Kitsap County, Washington  
June 2006**



**US Army Corps  
of Engineers®**  
Seattle District

FLEET AND INDUSTRIAL SUPPLY CENTER, PUGET SOUND FUEL DEPARTMENT  
300 FT. SMALL BOAT/BARGE DOCK REPLACEMENT

**DRAFT FINDING OF NO SIGNIFICANT IMPACT**

**1. Proposed Action.** The Fleet Industrial Supply Command Puget Sound Manchester Fuel Department (MFD) distributes fuel oil for use in naval vessels/shore stations, Coast Guard tankers, and National Oceanographic and Atmospheric Administration units. The MFD is proposing to replace an existing small boat/barge dock at their facilities on Orchard Point in southern Kitsap County, Washington. The dock is used to service boats which deploy oil spill containment booms around vessels loading or discharging fuel at the MFD fuel pier, to temporarily tie off barges that are delivering cargo to MFD, as well as to hold floating net pens for salmon rearing and release. Vessels utilizing this dock would be first-responders to any oil spill at the MFD large fueling pier, as well as responders to any large oil spill in southern Puget Sound. Due to its age, the dock is becoming increasingly hazardous for personnel using it, and is not well designed to handle the small boat mooring and servicing requirements of MFD.

**2. Summary of Impacts.** An Environmental Assessment (EA), pursuant to the National Environmental Policy Act (NEPA), has been prepared for the proposed work. This document describes the environmental consequences of the dock repair. The repair plan was designed in a manner which will minimize the environmental effects of the project. Construction will consist of removal of the existing dock, and replacement within the existing footprint. The replacement dock shall consist of pre-cast concrete piling supporting an aluminum grated deck on an aluminum frame. The structure will reduce the number of piles driven at the site, and may increase light penetration to surrounding surface waters by 60%. Pursuant to its Section 7 responsibilities under the Endangered Species Act, the Corps has evaluated effects on species or designated critical habitat protected under the Endangered Species Act and believes the dock repair may affect but is not likely to adversely affect these Critical Habitats and species. The Corps has also concluded that there will no be any adverse impacts to other shoreline resources, historic or archeological sites or other cultural resources, or Tribal interests and accustomed fishing areas.

**3. Finding.** Based on the analysis described above and provided in more detail in the EA, this project is not a major Federal action significantly affecting the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement.

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Date  
LCDR C.D.Light SC

Fuel Department Director  
Fleet Industrial Supply Center Puget Sound  
By direction



# FISC Puget Sound Fuel Department 300 FT. Small Boat/Barge Dock Replacement

## DRAFT Environmental Assessment & Biological Assessment

May 2006

**Responsible Agencies:** The agencies responsible for this work are the Department of the Navy, Fleet and Industrial Supply Center, Puget Sound and the U.S. Army Corps of Engineers, Seattle District (environmental compliance agent).

**Abstract:** This document evaluates the impacts of repairing an existing small boat dock at the Fleet Industrial Supply Command Puget Sound Manchester Fuel Department (MFD). The dock is used to service boats which deploy oil spill containment booms around vessels loading or discharging fuel at the MFD fuel pier, as well as providing temporary moorage for fuel barges in transit to the main fuel dock at MFD. Vessels utilizing this dock would be first-responders to any oil spill at the MFD large fueling pier, as well as responders to any large oil spill in southern Puget Sound. The age of the dock, as well as changes in operations and mission, require its replacement. In accordance with National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA), this document examines the potential impacts of the proposed project, with specific analysis of impacts to endangered threatened or otherwise listed species and designated critical habitat.

Routine repair and maintenance of Navy facilities associated with existing operations and activities is generally categorically excluded from NEPA documentation requirements under *Policies and Responsibilities for Implementation of the National Environmental Policy Act within the Department of the Navy* (32 CFR Part 775). However, under Navy NEPA regulations, categorical exclusions are not applied when a proposed action occurs in an area where federally-listed endangered/threatened species occur. For this reason, a primary focus of this Environmental Assessment/Biological Assessment (EA/BA) is potential impacts to species protected under the Endangered Species Act of 1973. As such, the Navy and Corps have agreed to present this document as a Biological Assessment prepared in accordance with Section 7, ESA; this document fulfills the Corps' Section 7 analysis of effects requirement for threatened, and endangered species, and designated Critical Habitat.

THE OFFICIAL COMMENT PERIOD ON THIS ENVIRONMENTAL ASSESSMENT IS BETWEEN 7 JUNE AND 7 JULY 2006.

This document is also available online at: <http://www.nws.usace.army.mil/ers/envirdocs.html>

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## 1. INTRODUCTION

The Navy is proposing to demolish and rebuild the Barge Mooring Pier at the FISC Puget Sound Fuel Department (MFD). The Corps of Engineers, Seattle District (Corps) is acting as the Navy's construction agent for this work. The Pier is used to moor vessels which deploy oil spill containment booms around vessels loading or discharging fuel at the MFD fuel pier. Vessels utilizing this dock would be first-responders to any oil spill at the MFD large fueling pier, as well as responders to any large oil spill in southern Puget Sound. In addition, fuel barges in transit to MFD (both in-bound and out-bound) use the dock as temporary moorage. The age of the dock, as well as changes in operations and mission, require its replacement. Specifically, the dock is deteriorating heavily, dock pilings and beams are made from creosote treated wood and are impenetrable to light, the attached float is not properly anchored to facilitate the oil spill response mission, and access to the dock is from a substandard ramp. In accordance with National Environmental Policy Act (NEPA), this document examines the potential impacts of the proposed project.

Routine repair and maintenance of Navy facilities associated with existing operations and activities is generally categorically excluded from NEPA documentation requirements under *Policies and Responsibilities for Implementation of the National Environmental Policy Act within the Department of the Navy* (32 CFR Part 775). However, under Navy NEPA regulations, categorical exclusions are not applied when a proposed action occurs in an area where federally-listed endangered/threatened species occur. For this reason, a primary focus of this Environmental Assessment (EA) is potential impacts to species protected under the Endangered Species Act of 1973 (ESA). As such, this combined EA/Biological Assessment (BA) will also serve to convey the Corps' assessment of impacts to Endangered Species under Section 7 of the ESA.

### 1.1 Location

The FISC Puget Sound Fuel Department (MFD) is located in Orchard Point in southern Kitsap County, 7 miles west of Seattle and 11 miles east of Bremerton, Washington (Bremerton East Quadrangle, T24N, R02E, Section 15). The 234 acre site is bounded by Puget Sound and Rich Passage/Clam Bay to the east and north, respectively; National Marine Fisheries Service (NMFS) and Environmental Protection Agency (EPA) property to the northwest; rural lands to the west; and residential property and the town of Manchester to the south. See Figure 1 in Appendix A.

### 1.2 Site Information

The FISC Puget Sound Fuel Department is owned and operated by the U.S. Navy for distribution of fuel oil for use in naval vessels/shore stations, Coast Guard tankers, and National Oceanographic and Atmospheric Administration units. The MFD has been receiving, storing, and supplying various types of petroleum products to military fleet units and for shore activities in the Pacific Northwest since World War II. The MFD has a storage capacity of over 70 million gallons.

The Pier is located on the Rich Passage side of Orchard Point (see Figures 1 and 2). The 315-foot long creosote-treated wood piling structure (63 piles per As-Built drawings) is

approximately 12' wide at the top with an attached 50' long by 15' wide foam-filled concrete float. This structure was built in the 1940s. One of the primary purposes of the ramp is to support oil spill response boats, barges, and other Navy vessels. Other users include NMFS and EPA (the EPA dock in Clam Bay is not functional at lower tides). The end of the dock was subsequently extended with a concrete dolphin. The proposed project will not affect this concrete structure.

### *1.3 Project Purpose and Need*

The purpose of these repair activities is to assure that the Pier can be used in a timely and safe manner. This will allow for rapid containment of any spills at the large fuel pier during low tides, thereby minimizing the risk of exposure of fish and benthic organisms to petrochemicals. If no action is taken, hazards to human health and safety would continue to exist at the small pier. In addition, there could be delays in response to fuel oil spills due to difficulty in moving materials and personnel to waiting boats.

## **2. ALTERNATIVES CONSIDERED**

### *2.1 No Action*

The existing pier is deteriorating, and likely leaching creosote into the surrounding water and sediments. It is unsafe to use for small boat moorage, and for supplying oil spill response boats. Small boats operated by other federal agencies (EPA, NOAA) in support of ongoing missions do not have an adequate temporary moorage facility. These conditions will persist and worsen if the pier is not replaced.

### *2.2 Partial Replacement*

Replacement of the pilings only, or the deck only, does not remediate the deterioration of wooden parts not replaced, thus partial replacement is likely to lead to complete replacement at a later date. Partial replacement was not carried further in design, as it does not meet project objectives and needs.

### *2.3 Complete Replacement*

The Proposed Action is a complete replacement of the 315 ft. wooden pier structure, its associated pilings, and the attached moorage float. Construction will be phased, so that the existing pier is removed and the replacement pier is then constructed within the footprint of the existing structure. The replacement pier will be constructed from pre-cast concrete piles, driven to refusal (Minimum of 15 ft. below existing grade), with an aluminum frame and aluminum grated decking. The Navy and the Corps expect a three to four week total construction time, including up to 1 week for demolition, 1 week for pile driving, forming and pouring Cast-in-place bents, 1 week for the bents to cure, and 1 week to install framing, decking and railings.

Removal of the existing pier will be completed first. A floating crane and barge system will be employed to remove deck sections, with attached framing. The creosote-treated piles will also be removed using a crane and barge. A vibratory collar or other similar device may be employed

to loosen the soils around the piles and aid removal. Once demolished, the pier and piling debris will be catalogued and disposed of in accordance with state and Federal regulations. Following demolition of the existing pier, pre-cast concrete pilings will be installed within the footprint of the current structure. The pilings will be driven to refusal depth, which is a minimum of 15 feet below existing grade (based on existing wood pilings). A total of 20 piles may be driven to support the entire length of new dock; this is a reduction from the 63 piles existing at the site based on Navy As-Built drawings. Forms will be placed atop the piles, and cast-in-place concrete bents will be constructed on each pile group. Steel framing will then be attached to the concrete bents, and fiberglass decking with steel railing will be installed. The completed structure will be 315 ft. long and 8 ft. wide. This represents a reduction in width from the existing 12 feet.

The temporary moorage float will be reused. The current float anchor system is deteriorating, and has outboard steel pipe clamps holding it to its anchor pilings. This effectively prevents the float from being used for small boat moorage. The replacement float connections will be preconstructed with anchor points along its perimeter, and will be anchored to the site using ship anchors. A chain system will connect the anchors to the float, and will allow for wave action, tide range, and minor lateral movement without damage to the float or the adjacent small boat dock. Moorage will be created around three sides of the float.

### **3. IMPACT REDUCTION MEASURES**

Environmental impacts from the Proposed Action are expected to be minimal. These impacts may include, but are not necessarily limited to: minor sediment plumes created by the removal of existing creosote-treated wood piles and subsequent driving of pre-cast concrete piles; noise created by pile driving and over water construction activities. More specific descriptions of these impacts to the existing environment, and the species listed under the ESA are presented in subsequent sections of this EA.

#### *3.1 Impact Avoidance/Reduction*

Demolition of the existing structure and construction of the replacement pier will be performed within the existing in-water work window of 15 July through 31 August. All in-water or over water work will be conducted with equipment using “fish friendly” vegetable oil based hydraulic fluids, as well as appropriate containment for on-board fuels and lubricants. Removal of the 63 existing, deteriorated creosote pilings and replacement with fewer pre-cast concrete pilings will result in a reduction of impacts to the sediment and water column from the pier. Use of fiberglass decking to replace the existing wood decking is expected to result in a 60% increase in light penetration to the adjacent surface waters.

#### *3.2 Compensatory Mitigation*

As a replacement project, which qualifies under the Corps Nationwide Permit 3 – Maintenance, no compensatory mitigation is required, “*provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal.*” Environmental impacts are expected to be minor and temporary in nature. Thus, no compensatory mitigation is expected.

### 3.3 Monitoring

During construction, routine visual monitoring for distressed fish will be carried out. Monitoring for water quality parameters is not expected to be required, but will be initiated if there is sustained suspended sediment present, or in the event of an unforeseen discharge of sediment or pollutants to surface waters at the site. No long term post-construction monitoring is anticipated.

## 4. EXISTING ENVIRONMENT

Rich Passage is a shallow sill, less than 70 feet deep. Its waters are biologically productive due to this shallow depth and the tidal constriction provided by the narrow passage between Bainbridge Island and Orchard Point/Point Glover. The obstruction to tidal flows caused by the sill causes localized upwelling and enhanced vertical flux of nutrients, which results in elevated primary production (Kruckeberg 1991). The marine waters along the shorelines of the East Kitsap basin also provide a physical transition zone between the warmer, less saline waters of the shallow shelves, bays, and channels of the peninsula to the cool, dense saline ocean waters of Puget Sound's main basin (Williams et al. 1975).

Rich Passage is characterized by swift, strong tidal currents. Flood currents are directed to the N-NW, and ebb currents are directed to the S-SE. In Clam Bay, currents are oriented parallel to shore but undergo as many as four reversals of direction during a single tidal cycle (Hart Crowser 1996). Net current drift in the vicinity of Orchard Point is oriented to the E-SE, with an estimated velocity of 3 cm/sec (Hart Crowser 1996). In the deeper waters of Rich Passage net drift is flood dominant (i.e., toward the NW). The maximum retention time for waters in the furthest interior regions of Clam Bay is approximately six hours (Hart Crowser 1996). Salinity adjacent to the MFD large fueling pier ranges from 26 to 30 ppt (Weitkamp, 1994).

The Washington State Ferry System runs car/passenger ferries through Rich Passage several times a day. Navy and commercial ships, as well as private boats also frequent the project area.

In Clam Bay and the small embayment in which the dock is located, the bathymetry is gently sloping. The depth in the outer portions of the bays is approximately -18' MLLW. From there depths off Orchard Point drop off dramatically, to -60' MLLW only 500' from shore and -300' MLLW one mile offshore.

The eelgrass bed nearest to the project site is located on the other side of Orchard Point, adjacent to the large fuel pier. Smelt and sand lance are known to spawn on beaches to the south of the project site. Herring holding occurs in Port Orchard Sound.

Shoreline conditions along Orchard Point are generally good, with only moderate development. Three piers are located along the project area's shoreline, but much of the shoreline of the Federal property is forested with little bank stabilization/hardening present. The MFD is bound by Clam Bay to the north. A NMFS mariculture laboratory, the Manchester Environmental Laboratory (a chemistry laboratory operated jointly by EPA and Ecology), and the Manchester Annex Superfund Site are located along the shoreline of Clam Bay. A NMFS salmon net pen operation is present in the southern portion of Clam Bay. Commercial salmon fish pens are present in Rich Passage approximately 1000 ft west of the project site.

The shoreline of the small embayment in which the pier and dock are located is characterized by bedrock outcroppings vegetated with Douglas fir (*Pseudotsuga menziesii*), Pacific madrone (*Arbutus menziessi*), and an understory consisting of Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus discolor*), huckleberry (*Vaccinium spp.*), and oceanspray (*Holodiscus discolor*). Please refer to the photographs in Appendix B. At a 2/28/01 site visit, the substrate adjacent to the ramp and pier was primarily sand/gravel with patches of cobble. Rip rap is present in the area immediately adjacent to the small dock.

## 5. ENVIRONMENTAL EFFECTS

The proposed project is normal repair of an existing structure that has reached its life expectancy. All work will occur in the footprint of the existing structure. As described below, construction activities associated with the proposed work may have an effect on water quality and noise levels in the vicinity of the pier. However, these impacts would be temporary and highly localized in scope. Adverse effects on species or designated critical habitat protected under the Endangered Species Act or other shoreline resources are not anticipated.

### 5.1 Water Quality

The Navy and the Corps anticipate minor, temporary impacts to water quality at the site. These impacts may come from sediment which is suspended either by removal of the existing pilings, or driving of the new concrete pilings. This suspended sediment will be highly localized to the area adjacent to pile driving work, and is expected to settle quickly. There are also likely to be minor changes to the water pH immediately around each concrete pile.

### 5.2 Intertidal Habitat

Since all work will occur in the footprint of the existing pier, there will not be a reduction in intertidal habitat. No additional scour or wave deflection is anticipated since there will not be a net increase in hard structures. No trees or other shoreline vegetation will be removed during construction. The potential for petrochemical pollution is low, as no refueling occurs on the dock or adjacent shoreline.

Construction will include removal of as many of the 63 existing intact pier pilings as possible. Removal will decrease the amount of creosote leaching into surrounding sediments, and thus decrease the impact to benthic organisms.

### 5.3 Noise Disturbance

The noise associated with the operation of heavy equipment may disrupt wildlife in the vicinity of the work. However, the project area is characterized by substantial human activity on both the waterward and landward sides of the shoreline. Surrounding areas are heavily forested, and the topography is such that construction noise is not expected to travel far from the work area. Construction will be temporary and highly localized. Construction will occur during a portion of the year when bald eagles are most tolerant of disturbance. Any effects of noise disturbance are expected to be insignificant.

#### 5.4 Endangered and Threatened Species

Several species listed as either threatened or endangered are potentially found adjacent to the MFD in Puget Sound. These species are listed in Table 1. Pursuant with Section 7 of the Endangered Species Act (ESA), this combined EA/BA describes the effects to listed species, as well as avoidance and minimization measures that will be in-place during construction. The BA portion of the document seeks to make either a No Effect determination, or a May Affect, not likely to Adversely Affect determination.

**Table 1. Protected Species Potentially Occurring in the Project Vicinity**

Species	Listing Status	Effect Determination
Bald Eagle <i>Haliaeetus leucocephalus</i>	Threatened	Not likely to adversely affect
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened	Not likely to adversely affect
Coastal/Puget Sound Bull Trout <i>Salvelinus confluentus</i>	Threatened	Not likely to adversely affect
Puget Sound Chinook Salmon <i>Oncorhynchus tshawytscha</i>	Threatened	Not likely to adversely affect
Steller Sea Lion <i>Eumetopias jubatus</i>	Threatened	Not likely to adversely affect
Humpback Whale <i>Megaptera novaeangliae</i>	Endangered	Not likely to adversely affect
Leatherback Sea Turtle <i>Dermochelys coriacea</i>	Endangered	Not likely to adversely affect
Southern Resident Killer Whale <i>Orcanus orca</i>	Endangered	Not likely to adversely affect
Puget Sound/Strait of Georgia Coho Salmon <i>Oncorhynchus kisutch</i>	Species of Concern	No determination made
Puget Sound Steelhead <i>Oncorhynchus mykiss</i>	Proposed	Not likely to adversely affect

Nine species protected under the Endangered Species Act of 1973 (16 USC 1531-1544) potentially occur in the project vicinity. U.S. Fish and Wildlife Service (USFWS) regional web sites ([http://westernwashington.fws.gov/se/SE\\_List/KITSAP.htm](http://westernwashington.fws.gov/se/SE_List/KITSAP.htm)) were consulted April 7, 2006 to determine which species under USFWS jurisdiction potentially occur in the project area. Likewise, National Marine Fisheries Service (NMFS) Northwest Region web sites (<http://www.nwr.noaa.gov/1habcon/habweb/listnwr.htm> and <http://www.nwr.noaa.gov/1seals/marmamlist.html>) were consulted on April 7, 2006 to determine which species under NMFS jurisdiction potentially occur in the project area. The following sections briefly summarize relevant life history information on the protected species, synthesize current knowledge on the presence and utilization of the project and action areas by these species, and then evaluate how the proposed project may affect the species concluding with a determination of effect.

#### 5.4.1. Bald Eagle

The Washington State bald eagle population was listed as threatened under the Endangered Species Act of 1973, as amended, in February 1978. Since DDT was banned in 1972, bald eagle populations have rebounded. The bald eagle was proposed for de-listing in July 1999.

The bald eagle wintering season extends from October 31 through March 31. Food is recognized as the essential habitat requirement affecting winter numbers and distribution of bald eagles. Other wintering habitat considerations are communal night roosts and perches. Generally large, tall, and decadent stands of trees on slopes with northerly exposures are used for roosting; eagles tend to roost in older trees with broken crowns and open branching (Watson and Pierce 1998). Bald eagles select perches on the basis of exposure, and proximity to food sources. Trees are preferred over other types of perches, which may include pilings, fence posts, power line poles, the ground, rock outcrops, and logs (Steenhof 1978).

Bald eagles nest between early January and mid-August. The characteristic features of bald eagle breeding habitat are nest sites, perch trees, and available prey. Bald eagles primarily nest in uneven-aged, multi-storied stands with old-growth components. Factors such as tree height, diameter, tree species, and position on the surrounding topography, distance from water, and distance from disturbance also influence nest selection. Snags, trees with exposed lateral branches, or trees with dead tops are often present in nesting territories and are critical to eagle perching, movement to and from the nest, and as points of defense of their territory.

Birds and fish are the primary food source for eagles in Puget Sound, but bald eagles will also take a variety of mammals and reptiles (both live and as carrion) when fish are not readily available (Knight et al. 1990). Eagles in tidally influenced habitats also scavenge and pirate more prey than do eagles at rivers or lakes, possibly resulting from expanded feeding opportunities provided by dead and stranded prey on tide flats (Watson and Pierce 1998).

#### *Utilization of the Action Area*

The MNFD is an important year-round hunting area for both adult and sub-adult bald eagles (Grassley and Grue 1999). Foraging bald eagles frequently perch in trees along the shoreline of the MNFD (Grassley and Grue 1999). USFWS has previously indicated in correspondence to the Corps that wintering bald eagles may occur in the vicinity of the project (FWS REF: 1-3-01-SP-1120).

Information on bald eagles in the WDFW Priority Habitats and Species Database indicates that eight bald eagle nests are located within 2.5 miles of the project site. The closest of these nests are located along the shoreline approximately 0.7 mile and 1.25 miles to the southwest of the site. Northeast of the site on Bainbridge Island there is a nest approximately 2.25 miles from the site. Approximately 2.5 miles southeast of the MNFD is Blake Island, a state park with five eagle nests.

### *Effects of the Proposed Action*

No perching, nesting, or roosting habitat will be physically disturbed by dock replacement actions. Since nesting and wintering territories are located in the vicinity of the project, construction will likely occur outside of the bald eagle nesting season (January 1 - August 15) and wintering season (October 31 – February 31). There is an eagle nest approximately 1,000 feet west of the proposed project site. There will be no disturbance to the nesting site.

The noise associated with the operation of heavy equipment could cause eagles to temporarily avoid the area, or disrupt foraging activities. The effect of noise disturbance is expected to be insignificant for several reasons: (1) eagles tend to tolerate more disturbance at feeding sites than in roosting areas (Steenhof 1978); (2) construction will occur during a portion of the year when bald eagles are most tolerant of disturbance; and (3) the project area is characterized by substantial human activity on both the waterward and landward sides of the shoreline so any eagles in the area are likely acclimated to human presence. The availability of prey will not be significantly disrupted by project construction. If construction occurs in 2006 during the end of the nesting season, it is not expected to have a significant impact on fledgling eagles as the project site is 0.7 miles from the nearest nest, and equipment operation will not be much noisier than routine site operations.

### *Effect Determination*

Since construction activities will not occur during the nesting and wintering seasons and only minor disruptions to foraging activities are expected, the proposed project **may affect, but is not likely to adversely affect** the bald eagle.

#### *5.4.2. Marbled Murrelet*

The marbled murrelet was listed as a threatened species under the Endangered Species Act of 1973, as amended, in October 1992. Primary causes of population decline include the loss of nesting habitat, and direct mortality from gillnet fisheries and oil spills.

The subspecies occurring in North America ranges from Alaska's Aleutian Archipelago to central California. Marbled murrelets forage in the near-shore marine environment and nest in inland old-growth coniferous forests of at least seven acres in size. Marbled murrelets nest in low-elevation forests with multi-layered canopies; they select large trees with horizontal branches of at least seven inches in diameter and heavy moss growth. Of 95 murrelet nests in North America during 1995, nine were located in Washington. April 1 through September 15 is considered nesting season; however in Washington, marbled murrelets generally nest between May 26 and August 27 (USFWS 1999). Adult Murrelet's feeding their young fly between terrestrial nest sites and ocean feeding areas primarily during the dawn and dusk hours during the daytime.

Marbled murrelet spend most of their lives in the marine environment, where they forage in areas 0.3 to 2 km from shore. Murrelets often aggregate near localized food sources, resulting in a clumped distribution. Prey species include herring, sand lance, anchovy, osmerids, seaperch, sardines, rockfish, capelin, smelt, as well as euphasiids, mysids, and gammarid amphipods.

Marbled murrelets also aggregate, loaf, preen, and exhibit wing-stretching behaviors on the water.

Although marine habitat is critical to marbled murrelet survival, USFWS' primary concern with respect to declining marbled murrelet populations is loss of terrestrial nesting habitat. In the marine environment, USFWS is primarily concerned with direct mortality from gillnets and spills of oil and other pollutants (USFWS 1996).

Critical habitat was designated for the marbled murrelet on May 24, 1996 (USFWS 1996). The critical habitat units nearest to the project site are approximately 25 miles away, on the west side of Hood Canal in the Olympic National Forest.

#### *Utilization of the Action Area*

Marbled murrelets occur in Puget Sound marine habitats in relatively low numbers (Speich and Wahl 1995). The species moves about a great deal over several temporal scales: seasonally, daily, and hourly. Regional patterns of activity tend to be seasonal, and are tied to exposure to winter storm activity. There is generally a shift of birds from the Strait of Juan de Fuca and British Columbia during spring and summer to areas in the San Juan areas and eastern bays during the fall and winter (Speich and Wahl 1995). Murrelets are often found in specific areas (e.g., Hood Canal, Rosario Strait/San Juans), as foraging distribution is closely linked to tidal patterns. However, occurrences are highly variable as they move from one area to another often in short periods of time.

#### *Effects of the Proposed Action*

Construction activities would have no effect on murrelet nests or nesting habitat, as none occurs in the vicinity of the project. However, construction activities would occur in and adjacent to foraging habitat. The noise associated with the operation of heavy equipment could disrupt foraging activities and cause murrelets to temporarily avoid the area.

The effects of human disturbance on murrelets at sea are not well documented, but they apparently habituate to heavy levels of boat traffic (Strachan et al. 1995). USFWS guidance suggests that noise above ambient levels is considered to potentially disturb marbled murrelets when it occurs within 0.25 mile of suitable foraging habitat (USFWS 1996). Dock replacement operations will occur adjacent to suitable foraging habitat, but substantial human activity on both the waterward and landward sides of the shoreline is common and construction noise will be in highly localized with respect to this species' foraging range. Marbled murrelets are relatively opportunistic foragers; they have flexibility in prey choice which likely enables them to respond to changes in prey abundance and location (USFWS 1996). This indicates that if murrelets are present in the immediate vicinity of construction activities and they are if disturbed while foraging, they would likely move without significant injury. Therefore, the effect of noise disturbance associated with the proposed project is expected to be insignificant.

Dock replacement activities are not expected to result in a long-term reduction in the abundance and distribution of murrelet prey items. Temporary, highly localized increases in turbidity associated with the proposed work could reduce visibility in the immediate vicinity of the

project, thereby reducing foraging success for any murrelets that remain in the area. Any reduction in prey availability would subside rapidly upon completion of the construction work. The proposed project will not increase boat traffic in the action area.

#### *Effect Determination*

Since construction activities will have no effect on nesting habitat or the murrelet food base, and the effects of any noise disturbance during construction are expected to be insignificant, the proposed project **may affect, but is not likely to adversely affect** the marbled murrelet. The dock replacement work will have **no effect** on designated critical habitat for this species.

#### *5.4.3. Coastal/Puget Sound Bull Trout*

The Coastal/Puget Sound bull trout population segment was listed as a threatened species under the Endangered Species Act of 1973, as amended, in October 1999. Bull trout populations have declined throughout much of the species' range; some local populations are extinct, and many other stocks are isolated and may be at risk (Reiman and McIntyre 1993). A combination of factors including habitat degradation, expansion of exotic species, and exploitation has contributed to the decline and fragmentation of indigenous bull trout populations.

Bull trout are known to exhibit four types of life history strategies. The three freshwater forms include adfluvial, which migrate between lakes and streams; fluvial, which migrate within river systems; and resident, which are non-migratory. The fourth and least common strategy, anadromy, occurs when the fish spawn in fresh water after rearing for some portion of their life in the ocean.

Bull trout spawning usually takes place in the fall during September and October. Initiation of breeding appears to be related to declining water temperatures. In Washington, Wydoski and Whitney (1979) reported spawning activity was most intense at 5 to 6°C. Spawning occurs primarily at night. Groundwater influence and proximity to cover are reported as important factors in spawning site selection. Bull trout characteristically occupy high quality habitat, often in less disturbed portions of a drainage. Necessary key habitat features include channel stability, clean spawning substrate, abundant and complex cover, cold temperatures, and lack of barriers which inhibit movement and habitat connectivity (Reiman and McIntyre, 1993).

Juvenile bull trout, particularly young of year (YOY), have very specific habitat requirements. Small bull trout are primarily bottom-dwellers, occupying positions above, on or below the stream bottom. Bull trout fry are found in shallow, slow backwater side channels or eddies. The adult bull trout, like its young, is a bottom dweller, showing preference for deep pools of cold water rivers, lakes and reservoirs (Moyle 1976).

Bull trout movement in response to developmental and seasonal habitat requirements makes their movements difficult to predict both temporally and spatially. A recent WDFW (1999) summary paper on bull trout in Stillaguamish Basin provided some general information on bull trout distribution in Puget Sound river basins. Newly emergent fry tend to rear near spawning areas, while foraging juvenile and sub-adults may migrate through river basins looking for feeding opportunities. Post-spawn adults of the non-resident life form quickly vacate the spawning areas

and move downstream to forage, some returning to their “home” pool for additional rearing. Anadromous sub-adults and non-spawning adults are thought migrate from marine waters to freshwater areas to spend the winter.

Based on research in the Skagit Basin (Kraemer 1994), anadromous bull trout juveniles migrate to the estuary in April-May, then re-enter the river from August through November. Most adult fish entered the estuary in February-March, and returned to the river in May-June. Sub-adults, fish that are not sexually mature but have entered marine waters, move between the estuary and lower river throughout the year.

#### *Utilization of the Action Area*

The 1998 WDFW Salmonid Stock Inventory recognized 14 bull trout subpopulations in eight Puget Sound river basins: Nooksack River (3 stocks), Skagit River (3 stocks), Stillaguamish River (1 stock), Snohomish River (1 stock), Cedar River (1 stock), Green River (1 stock), Puyallup River (3 stocks), and Nisqually River (1 stock). Three distinct stocks occur in Hood Canal drainages, all within the Skokomish River basin (WDFW 1998). No spawning streams are located in Kitsap County.

Anadromous sub-adults and adults utilize estuarine and nearshore marine habitats in Puget Sound for the feeding opportunities these areas present. Any bull trout occurring in the action area would not be resident fish, but individuals on foraging expeditions (Goetz 2001). Construction will occur outside of the February 16 - July 15 USFWS bull trout closure period for marine waters. Since anadromous bull trout over winter in freshwater areas, it is unlikely that sub-adults or non-spawning adults would be in the action area during construction activities.

#### *Effects of the Proposed Action*

The only type of water quality impacts that may result from the proposed action is an increase in local turbidity. Although these changes are expected to be minor, temporary, and highly localized in scope, construction work will occur outside of the USFWS bull trout closure period for in-water work (February 15 through July 15, the portion of the year when bull trout are most likely to be present in marine/estuarine waters). This work window will greatly reduce the likelihood for harm to bull trout.

Increased turbidity will be associated with all phases of the work, particularly the removal of creosote wood pilings, and the driving of concrete replacement pilings. Given the strong currents in the project area, the large grain size of sediments in the project area, and the small amount of in-water work required, turbidity is not expected to extend beyond a 150' radius of the work area. It is unlikely that a bull trout would occur in the action area during construction activities, but if one was it would be a large fish mobile enough to avoid any turbid areas without injury. The life history stages requiring the lowest suspended sediment concentration—spawning, incubation, and fry rearing—do not occur in project action area. No eelgrass beds will be affected by a project-induced turbidity plume. Any sediment plume resulting from the proposed action is not expected to be large or persistent enough to appreciably affect benthic production or any forage fish in the action area.

Since all work will occur in the footprint of the existing dock, there will not be a reduction in intertidal habitat. No additional scour or wave deflection is anticipated since there will not be a net increase in hard structures. No trees or other riparian vegetation will be removed during construction.

The repair will not increase usage of the dock, but will decrease the amount of harmful creosote piling in the water. Operational effects are expected to be insignificant. The potential for petrochemical pollution is low, as no refueling occurs on the dock or adjacent shoreline.

#### *Effect Determination*

The proposed project **may affect, but is not likely to adversely affect** bull trout or their critical habitat. This determination is based upon the highly localized geographic scope of the project, the low likelihood that bull trout would be present in the action area during construction activities, and the lack of changes to baseline habitat conditions at the project site.

#### *5.4.4. Puget Sound Chinook Salmon*

The Puget Sound Evolutionarily Significant Unit Chinook salmon was listed as a threatened species under the Endangered Species Act of 1973, as amended, in March 1999.

Like all other Puget Sound chinook, those observed near Orchard Point are of the ocean-type race (NMFS 1998). Ocean-type chinooks migrate to sea during their first year of life, normally within three months after emergence from spawning gravel. Growth and development to adulthood occurs primarily in estuarine and coastal waters (NMFS 1998). Ocean-type chinook return to their natal river in the fall, though actual adult run and spawning timing is in response to the local temperature and water flow regimes (Myers et al. 1998). After spawning, females remain on the redd from 4 to 26 days until they die or become too weak to hold in the current (Neilson and Green 1981, Neilson and Banford 1983). During this period, females will vigorously defend the redd against the spawning activity of newly arriving fish. Duration of incubation varies; depending on location of redds, but is generally completed by the end of February. Young chinook reside in stream gravels for 2 to 3 weeks after hatching (Wydoski and Whitney 1979) before moving to lateral stream habitats (e.g., sloughs, side channels, and pools) for refugia and food during their migration downstream and out to Puget Sound. Peak emigration occurs from March to June.

The amount of time juveniles spend in estuarine areas is dependent upon their size at downstream migration and rate of growth. Juveniles disperse to deeper marine areas when they reach approximately 65-75 mm in fork length (Simenstad et al. 1982). While residing in upper estuaries as fry, juvenile chinook have an affinity for benthic and epibenthic prey items such as amphipods, mysids, and cumaceans. As the juveniles grow and move to deeper waters with higher salinities, this preference changes to pelagic items such as decapod larvae, larval and juvenile fish, drift insects, and euphausiids (Simenstad et al. 1982).

Designated critical habitat for the Puget Sound ESU Chinook includes all marine, estuarine and river reaches accessible to the species in Puget Sound (NMFS 2000). Critical habitat consists of the water, substrate, and the adjacent riparian zone of accessible estuarine and riverine reaches.

### *Utilization of the Action Area*

Chinook utilize the larger East Kitsap drainages, including Coulter, Rocky, Minter, Burley, Gorst, Chico, and Dogfish creeks (Williams et al. 1975). Gorst Creek is the chinook-bearing stream nearest to the project site, and was included as a South Sound Chinook Stock in the 1992 Washington Salmon and Steelhead Inventory. This stock was characterized by extensive non-native transfers from other basins and considerable hatchery outplantings (WDFW and WWTIT 1994). Most nearby streams are characterized by small drainages and low gradients, which are not typically used by chinook (Williams et al. 1975).

Beach seining conducted during mid-March to late July in 1991, 1992, and 1993 indicate that juvenile chinook salmon utilize nearshore intertidal areas at the Manchester Fuel Depot (Weitkamp 1994). In 1993, 140 chinooks were captured by beach seine and 4 were captured by purse seine. This ratio indicates that during late spring and early summer, juvenile chinook utilize shallow (-2' to +2' MLLW) nearshore areas more than deeper (-55' to -60' MLLW) waters. Four of the Chinook salmon caught was missing adipose fins, indicating the presence of coded wire tags. WDFW determined these fish came from the Clearwater Hatchery (Nisqually River) and the Green River Hatchery.

The Weitkamp (1994) data indicate that during some years juvenile chinook utilize the action area during the NMFS closure period for Puget Sound ESU chinook in marine waters (March 1 – July 1). During beach seines in 1993, 62 subyearling and 1 yearling chinook were captured on July 14, and 16 were captured on July 29.

### *Effects of the Proposed Action*

The effects of the proposed action on chinook will be similar to those described for bull trout. Construction work will occur outside of the NMFS closure period for in-water work, March 1 through July 1. This closure period corresponds to the portion of the year when chinooks are most likely to be present in nearshore marine waters. As discussed above, data indicate that juvenile chinook may utilize the action area outside of the closure period. However, since bull trout and nesting bald eagles occur in the project area, construction will not begin until August. This gap allows for more time for chinook smolts to rear and move further offshore, thereby reducing the likelihood that smolts will be in the project area during construction activities.

### *Effect Determination*

The proposed project **may affect, but is not likely to adversely affect** Chinook salmon or designated critical habitat for this species. This determination is based upon the highly localized geographic scope of the project, the low likelihood that chinook would be present in the action area during construction activities, and the lack of changes to baseline habitat conditions at the project site. In accordance to the Sikes Act of 1997 (16 U.S.C. 670a) to have a completed Integrated Natural Resource Management Plan (INRMP), the Naval Fuel Depot, Manchester has the INRMP and critical habitat is only designated within a narrow nearshore zone from the line of extreme high tide down to the line of mean lower low water.

#### 5.4.5. Puget Sound Steel Head

The Puget Sound Steelhead was proposed for listing as endangered or threatened species on March 29, 2006.

The steelhead exhibits complex life-history traits as they can be anadromous (steelhead), or freshwater residents (rainbow or redband trout) and sometimes yield offspring of the opposite life-history form. Those that are anadromous can spend 7 years in fresh water before migrating to salt water, and then spend 3 years in salt water. The steelhead is also iteroparous or they can spawn more than once before they die. Within their range steelhead can have spawning migrations that usually with seasonal peaks of activity and are usually associated with the season of occurrence such as winter, summer, fall, or spring. The summer or “stream maturing types” enter fresh water between May and October while the “ocean maturing types enters fresh water between November and April of any given year.

Critical habitat was considered during the listing of the Puget Sound Chinook Salmon and those critical habitat conditions apply at the current time for Puget Sound Steelhead Critical Habitat.

#### *Utilization of the Action Area*

Since there are no streams directly associated with the proposed project the area would potentially be used for migratory steelhead. Beach seining conducted during mid-March to late July in 1991, 1992, and 1993 indicate that steelhead utilize nearshore intertidal areas at the Manchester Fuel Depot (Weitkamp 1994). In 1993, 3 steelhead were captured by beach seine and none were captured by purse seine indicating the area is not heavily used by steelhead.

#### *Effects of the Proposed Action*

The effects of the proposed action on steelhead will be similar to those described for bull trout and chinook. Since the area is basically used for migration or migrating through the area the impacts will be insignificant.

#### *Effect Determination*

The proposed project **may affect, but is not likely to adversely affect** steelhead or designated critical habitat for this species. This determination is based upon the highly localized geographic scope of the project, the low likelihood that steelhead would be present in the action area during construction activities, and the lack of changes to baseline habitat conditions at the project site.

#### 5.4.6. Steller Sea Lion

The Steller sea lion was listed as a threatened species under the Endangered Species Act of 1973, as amended, in November 1990. In 1997, the North Pacific’s population of Steller sea lions was separated into two distinct stocks, one of which was reclassified as endangered. The status of the eastern stock, which includes the population inhabiting the waters of the Washington coast, remains unchanged.

The present range of the Steller sea lion extends from northern Japan, through the Bering Sea and Aleutian Islands, along Alaska's southern coast, and south to California. The centers of abundance and distribution lie in the Gulf and Alaska and Aleutian Islands. Steller sea lions are not known to migrate, but they do disperse widely during portions of the year other than the breeding season. Most information on the distribution of Steller sea lions has been collected during summer months, so their distribution during late fall and winter is poorly known (Steller Sea Lion Recovery Team 1992).

Two types of terrestrial habitats are utilized by Steller sea lions: rookeries are areas where adults congregate for breeding and pupping, and haul-outs are areas used for rest and socializing. Sites used as rookeries during the breeding season may be used as haul-outs during the remainder of the year. Steller sea lions haul-out on offshore islands, reefs, and rocks, while rookeries generally occur on beaches. Preferred rookeries and haul-out areas are located in relatively remote areas where access by humans and mammalian predators is difficult; locations are specific and change little from year to year (Steller Sea Lion Recovery Team 1992).

When not on land Steller sea lions are generally seen inshore, less than 5 miles from the coast. Steller sea lion foraging patterns vary depending upon age, season, and reproductive status, as well as the distribution and availability of prey. Foraging patterns of females during the winter months vary considerably; individuals travel an average of 133 km and dive an average of 5.3 hours per day. The vast majority of feeding dives occur to a depth of 100 m. The diet of Washington's Steller sea lions is not well known; primary prey items may include cod, pollock, rockfishes, herring, and smelt (Gearin and Jeffries 1996). They appear to be largely opportunistic feeders.

During the past 30 years, Steller sea lion populations have suffered a dramatic decline. Numbers in the rookeries of central/southern California, the central Bering Sea, and in the core Alaskan ranges have all decreased substantially. A number of natural and anthropogenic factors have been hypothesized as contributing to these declines, but a primary cause has not been definitively identified. It is generally thought that a nutritional deficiency resulting from a lack of abundance or availability of suitable prey is involved (Steller Sea Lion Recovery Team 1992). The Alaska pollock and Atka mackerel fisheries have specifically been implicated in decreasing the availability of prey. A similar decline has not been documented in the region from southeast Alaska through Oregon, where Steller sea lion numbers appeared to have remained stable (Steller Sea Lion Recovery Team 1992).

On August 27, 1993, NMFS designated critical habitat for Steller sea lions. All rookeries within U.S. borders, major haulouts in Alaska, aquatic areas associated with these terrestrial habitats, and aquatic foraging habitats in waters off Alaska were designated at this time (58 FR 53138). No critical habitat occurs in Washington.

#### *Utilization of the Action Area*

Steller sea lions may be observed in Puget Sound year round, but they are most abundant during the fall and winter months (Jeffries et al. 2000). No breeding rookeries have been identified in Washington waters; however, in 1992 a single pup was born on Carroll Island (WDFW 1993).

The most frequented haul-out areas in Puget Sound are located north of Admiralty Inlet. However, the species is occasionally seen on navigation buoys in Puget Sound (Jeffries et al. 2000). Two navigation buoys less than one mile from the project site, Restoration Point Buoy and Rich Passage Buoy, are known California sea lion haul-out sites (Jeffries et al. 2000).

#### *Effects of the Proposed Action*

Given the lack of rookery and major haul-out areas in southern Puget Sound, when in the action area Steller sea lions are likely on foraging expeditions. Construction activities will have no effect on breeding habitat or behavior, and are unlikely to affect the Steller sea lion prey base. Construction activities would occur in an area with substantial human activity on both the waterward and landward sides of the shoreline. Additional noise from the operation of heavy equipment may have an effect on foraging opportunities. Short-term impacts of any sound disturbance related to construction activities would likely result in displacement of animals rather than injury. The potential for long-term or indirect impacts of the proposed project to Stellar sea lions is minimal. The proposed work will not increase vessel traffic in the area, and construction activities are not anticipated to degrade water quality significantly.

#### *Effect Determination*

This project **May Affect, Not Likely to Adversely Affect** the Steller sea lion since the potential for significant sound disturbance or impacts to water quality and prey abundance are highly unlikely. The project will have **no effect** on designated critical habitat for this species.

#### *5.4.7. Humpback Whale*

In 1970 the humpback whale was listed as an endangered species under Endangered Species Conservation Act of 1969. The humpback is currently listed as endangered under the Endangered Species Act of 1973.

Humpbacks are a highly migratory species. Two types of migrations are distinguished: within-season movements through a portion of the summer range, presumably to find or follow concentrations of prey, and long-distance migrations between summering and wintering areas (NMFS 1991). The summer range of humpbacks extends from subtropical waters to the arctic and the species winters in tropical waters, where mating and calving occur. During the summer, North Pacific humpbacks feed in coastal areas; greatest numbers generally occur off the Aleutian Islands and California coast. The primary prey item of humpback whales is euphausiids, but they also feed on schooling fish such as anchovies, herring, sand lance, capelin, sardines, cod, and juvenile salmonids (Nitta and Naughton 1989). When not migrating, they occur very close to shore. Humpbacks visit coastal and inside waters more often than other large whale species, with the exception of the gray whale. At one time humpbacks were one of the most frequently sighted whales in Washington's inside waters.

Barlow (1994) identified four relatively separate migratory populations in the North Pacific: the coastal California/Oregon/Washington-Mexico stock, the Mexico offshore island stock, the central North Pacific stock (Hawaii/Alaska), and the western North Pacific (Japan) stock. The coastal California/Oregon/Washington-Mexico stock ranges from Costa Rica to southern British Columbia, but is most common in coastal waters off California in the summer/fall and Mexico in

the winter/spring (Barlow et al. 1997). In 1996, the minimum population estimate for this population was 563; the coastal California/Oregon/Washington-Mexico stock appears to be increasing in abundance (Barlow et al. 1997).

In 1965, the International Whaling Commission banned the commercial harvest of humpback whales in the North Pacific. Current threats to humpback populations include entanglement in offshore drift gillnets and ship strikes. It is thought that increasing levels of anthropogenic noise in the world's oceans may also impact whales, particularly baleen whales like the humpback that may communicate using low-frequency sound (Barlow et al. 1997).

Based on whaling statistics, the pre-1905 humpback population in the North Pacific can be estimated at 15,000. By 1966, this population was reduced to approximately 1,200. The North Pacific population is now thought to exceed 3,000 (Barlow 1994).

#### *Utilization of the Action Area*

Humpback whales are intermittently sighted in Puget Sound, but those observed do not remain for long periods and are considered stragglers. The likelihood that a humpback whale would be in the action area during construction is low.

#### *Effects of the Proposed Action*

Pile driving, removal and structure placement will produce noise above ambient levels. Since any humpback that happened to be in the action area during the construction period would likely be offshore and not in the shallow embayment where the dock is located, this noise is not expected to have any effects. Dock replacement will not increase vessel traffic in the area, and construction activities are not anticipated to degrade water quality or decrease prey availability except perhaps in an extremely localized area directly adjacent to the project site.

#### *Effect Determination*

The proposed project **May Affect, Not Likely to Adversely Affect** the humpback whale. The likelihood that a humpback whale would be in the action area during construction is low, and if one did happen into the action area during construction it would be far enough offshore that sound disturbance would not be an issue.

#### *5.4.8. Leatherback Sea Turtle*

The leatherback turtle was listed as endangered throughout its range in June 1970. Leatherbacks nest in tropical and subtropical areas, but unlike other sea turtles they can survive in cold waters. The largest nesting colonies in the eastern Pacific are located in Mexico and Costa Rica (Plotkin 1995). The leatherback is the most pelagic of the sea turtles, most often found near the edge of the continental shelf. However, in northern waters they are reported to sometimes enter shallow estuarine bays. The primary food item of leatherbacks is jellyfish, but they will also eat fish, mollusks, squid, and sea urchins.

Habitat destruction, incidental catch in commercial fisheries, the harvest of eggs and flesh are the greatest threats to the survival of the leatherback. Critical habitat for the leatherback had been designated in the U.S. Virgin Islands.

#### *Utilization of the Action Area*

Leatherback sea turtle nesting grounds occur between 40°N and 35°S (Plotkin 1995), so no nesting areas are located in Washington. While this species may use oceanic areas off the coast of Washington as foraging grounds during the summer and fall months, aerial surveys indicate that when off the U.S. Pacific coast leatherbacks usually occur in continental slope waters (NMFS and USFWS 1998).

#### *Effects of the Proposed Action*

Pile driving, removal and structure placement will produce noise above ambient levels. Since any turtle that happened to be in the action area during the construction period would likely be offshore and not in the shallow embayment where the dock is located, this noise is not expected to have any effects. Dock replacement will not increase vessel traffic in the area, and construction activities are not anticipated to degrade water quality or decrease prey availability except perhaps in an extremely localized area directly adjacent to the project site.

#### *Effect Determination*

Given the distribution and mobility of the leatherback sea turtle, the proposed project will have **No Effect** on the species or its designated critical habitat.

#### *5.4.9. Puget Sound Southern Resident Killer Whales*

The Puget Sound Southern Resident killer whale population was listed as Endangered on February 16, 2006. This determination is based on the assessment that 1) Southern Residents are a Distinct Population Segment (DPS) as defined by the ESA; 2) that the Southern Residents have experienced a significant population decline within the last 10 years, and that the factors precipitating this decline may persist without increased protection; 3) current reproductive age females are not producing viable calves. The Southern Residents are already listed as “Depleted” under the Marine Mammal Protection Act; as “Endangered” under the Washington State Endangered Species List; and as Threatened under Canada’s Species at Risk Act. The listing will implement conservation, protective and Prohibition measures for the Southern Residents, as mandated under the ESA. In compliance with those regulations, the Corps is required to make an effects determination for this species. Critical habitat has been designated for this species as well. The Manchester Naval Fuel Depot falls under the Sikes Act and has the INRMP in place. The area beyond 20 feet deep falls into the critical habitat area.

#### *Utilization of the Action Area*

Southern Residents range throughout Puget Sound, and may occasionally migrate and or forage as far south as Monterrey Bay, California; sightings have been documented as far north as the northern Queen Charlotte Islands in Canada (Krahn et. al 2004). Only 27 confirmed sightings have been reported outside the Puget Sound region over the last 20 years (Krahn, et. al 2004). The Southern Resident’s customary range is thought to be primarily within Puget Sound, and

through and within the Georgia and Johnstone Straits. Within Puget Sound, the Southern Residents are believed to be piscivorous, concentrating their predation on adult salmonids. Hunting is known to occur in waters of all depths, and killer whales have been seen to “herd” schools of fish into shallow bays to increase their feeding effectiveness. Killer whales are also known to swim with and adjacent to boats and ships transiting the Sound.

#### *Effects of the Proposed Action*

Effects to killer whales from the Proposed Action are likely to be a result of noise disturbance. Specifically, noise created by the operation of the pile drives, cranes, and other machinery may dislocate both killer whales and their prey items from the immediate work area. While killer whales are known to be sensitive to noise in the marine environment, they appear to have adapted to normal marine noises of all kinds.

#### *Effect Determination*

As killer whales are highly mobile animals, dislocation from the project area due to noise disturbance, and due to prey movement is expected to be a minor temporary effect. The Corps concludes that the Proposed Action **may affect, but will not likely adversely affect** killer whales or the critical habitat in the project vicinity. . In accordance to the Sikes Act of 1997 (16 U.S.C. 670a) to have a completed Integrated Natural Resource Management Plan (INRMP), the Naval Fuel Depot, Manchester has the INRMP and critical habitat is located in waters deeper than 20 feet MLLW. The Sikes Act gives the Manchester Fuel Depot an exemption from critical habitat since their INRMP helps the species.

#### *5.5 Essential Fish Habitat*

The project area has been designated as Essential Fish Habitat (EFH) for various life stages of 17 species of groundfish, 5 coastal pelagic species, and three species of Pacific salmon.

Essential Fish Habitat (EFH) for the Pacific coast salmon fishery is those waters and substrate necessary for salmon production needed to support a long-term sustainable fishery and salmon contributions to a healthy ecosystem. Salmon EFH and potential adverse impacts to EFH have been identified by the Pacific Fishery Management Council (PFMC). Important features of marine EFH for salmon are: (1) adequate water quality, (2) adequate temperature, (3) adequate prey species and forage base, (4) adequate depth, cover, marine vegetation, and algae in estuarine and near-shore habitats (PFMC 1999).

As described in the effects analysis for chinook, the proposed action will not result in excessive levels of organic materials, inorganic nutrients, or heat. The action will not result in physical alterations which could affect water temperature, depth, or beach contours. The action will not remove large woody debris or other natural beach complexity features, nor will it affect any vegetated shallows. Prey species will not be impacted. Likewise, impacts to coastal pelagic and groundfish EFH are not anticipated. Replacement work will occur entirely in the footprint of an existing structure. Water quality will be impacted during construction, but no long-term degradation will occur.

The Corps has determined that the proposed action will not reduce the quality and/or quantity of EFH. No adverse effects to EFH are expected to result from this highly localized action.

The BA portion of this document concludes that the proposed project is not likely adversely affect any species protected under the Act, largely because construction will occur when chinook and bull trout are least likely to be present in the project area, and during a portion of the year when bald eagles are most tolerant of disturbance.

## 6. ENVIRONMENTAL COMPLIANCE

### 6.1 National Environmental Policy Act

This Environmental Assessment (EA) satisfies the documentation requirements of NEPA. The comment period for the Draft Environmental Assessment Will occur between June 1, 2006 and July 1, 2006. Comments received from agencies and the interested public will be incorporated into a Final Environmental Assessment. A Draft Finding of No Significant Impact (DFONSI) has been incorporated into the document and will likewise be circulated for comment.

### 6.2 Endangered Species Act

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed or proposed threatened or endangered species. This document is being submitted to the USFWS and NMFS as a Biological Assessment for their concurrence with the Corps determination of **May Affect, Not Likely to Adversely Affect** for Threatened, Endangered and Proposed species in Puget Sound, and for Essential Fish Habitat.

### 6.3 Clean Water Act

The Navy will submit a Washington State Joint Aquatic Resources Permit Application Form (JARPA) to the Washington Department of Ecology (Ecology) and the Regulatory Branch of the Seattle District Corps. Regulatory Branch has indicated that the proposed work qualifies for Nationwide Permit 3 (Maintenance).

### Coastal Zone Management Act

The Coastal Zone Management Act of 1972, as amended, requires Federal agencies to carry out their activities in a manner which is consistent to the maximum extent practicable with the enforceable policies of the approved state Coastal Zone Management Program.

**Comment [ges1]:** It is Navy policy to NOT submit an HPAbut to provide information for WDFW's use only.

Washington's Shoreline Management Permit and Enforcement Procedures are codified in section 173-27 of the Washington Administrative Code. Developments exempt from substantial development permit requirements include: "*Normal maintenance and repair of existing structures or developments, including damage by accident, fire or elements...Normal repair means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resources or environment...*" [WAC 173-27-040(b)].

The proposed project will simply restore the small dock to a state comparable to its original condition before damage by the elements occurred. Work will not extend beyond the footprint of

the original structure, and will not cause substantial adverse effects to shore resources or the environment. The proposed action will also replace degrading creosote-treated wood piles with pre-cast concrete, and reduce the number of piles needed to hold the dock above water. The proposed action is thus considered exempt from substantial development permit requirements and therefore consistent to the maximum extent practicable with the State of Washington Shoreline Management Program.

#### 6.4 National Historic Preservation Act

The National Historic Preservation Act (16 USC 470) requires that the effects of proposed actions on sites, buildings, structures, or objects included or eligible for the National Register of Historic Places must be identified and evaluated. A June 8, 2001 query of the 1993 Washington State Office of Archaeology and Historical Preservation database indicated that there are three documented archaeological sites within 1.0 mile of Navy dock repair site. A Corps archeologist concluded that the project will have no adverse effects on historic properties or resources included or eligible for inclusion in the National Register of Historic Places. The Navy will send the Washington Office of Archaeology and Historic Preservation a letter describing the project and the effect determination.

**Table 2 Federal Laws, Regulations, and Policies applicable to the MFD Barge/Small Boat Dock Replacement project.**

<i>Law/Policy/Regulation</i>	<i>Compliance Action &amp; Date</i>
1. Clean Water Act (§ 401 & 404)	The Navy will obtain and adhere to a Water Quality Certification from Ecology, if required.
2. Coastal Zone Management Act (16 USC 1451) Sec 307 (c)(1)	The Navy is seeking a Consistency Concurrence from Ecology
3. Endangered Species Act (Sec 7)	The Corps and Navy are submitting this EA/BA to the USFWS and NMFS for concurrence
4. National Historic Preservation Act (16 USC 470)	Consistent through this document; site and literature surveys are complete
5. Clean Air Act (Pl 91-604)	Consistent through this document; emissions from the construction equipment are considered <i>de minimus</i>
6. National Environmental Policy Act	Consistent through this document
7. Native American Graves Protection and Repatriation Act	Consistent through this document
8. Executive Order (E.O.) 11988 Flood Plain Management	In Compliance; local flood protection will be maintained by the project.
9. E.O. 12898 Environmental Justice in Minority populations	There will be no impact to minority communities from this project.

**Table 3 Local Laws, Regulations, and Policies applicable to the MFD Barge/Small Boat Replacement Project.**

<i>Law/Policy/Regulation</i>	<i>Compliance Action &amp; Date</i>
1. Kitsap County Comprehensive Plan	Consistent per CZM determination
2. Washington State Shoreline Management Act (Ch. 90.58)	The Corps will adhere to the maximum extent practicable to the enforceable policies of this program; The Navy will obtain a Shoreline permit for the project if applicable.
3. Washington State Growth Management Act	Not Applicable
4. Hydraulic Project Approval – WDFW	Not Applicable to the Corps, however The Corps will adhere to the maximum extent practicable to the enforceable policies of this program; the Navy May obtain an HPA

**7. CUMULATIVE IMPACTS**

The shoreline in the project vicinity has been impacted by construction of Navy refueling facilities, and the ongoing operation of Navy NMFS, and Washington Department of Ecology laboratory facilities. Construction and operation of these facilities has resulted in alterations to the shoreline and intertidal ecosystem which may previously have impacted those systems. The MFD Barge Mooring Pier replacement represents a decrease in cumulative impacts to the local shoreline, in that the replacement pier will result in removal of creosote pilings, replacement with fewer and less environmentally damaging concrete pilings, improvement of light penetration to surrounding waters (60%) and potentially recycling of existing Navy materials (ship anchors) instead of construction of new anchors or piles requiring the consumption of raw materials. Therefore the Corps concludes that the replacement of the Barge Mooring Pier at MFD will decrease cumulative impacts to the project area.

**8. CONCLUSION**

Based on the above analysis, this project is not a major Federal action significantly affecting the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement.

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**Appendix A**  
**Photographs of the Project Site**



**Figure 1** Aerial photo of the project area (5/92).



**Figure 2.** Existing site and pier photos (12/04).