

Environmental Assessment (with Draft FONSI)

for

Fiscal Year 2008 Maintenance Dredging
of Oakland Inner Harbor, Oakland, California

Prepared by

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1.0 Proposed Project

1.1 Description and Location. The proposed action is the maintenance dredging of portions of Oakland Inner Harbor (Figure 1) by the U.S. Army Corps of Engineers, San Francisco District (USACE). Oakland Harbor is located in the city of Oakland, Alameda County, California. The Port of Oakland consists of an Outer Harbor, a Middle Harbor, and an Inner Harbor. The entrance channel to all three is known as the Bar Channel.

The channel would be maintained by dredging to the depth of -46 feet Mean Lower Low Water (MLLW). Two additional feet of material (one ft. paid, one ft. unpaid overdepth) may be dredged as part of this work. Approximate volumes of accumulated sediment to be removed, as based on a survey performed on August 16, 2007 are, 119,000 cubic yards (CY) based on an estimate to the authorized depth, 166,000 CY based on 1 ft paid overdepth, and 233,000 CY based on 1 ft paid and one foot unpaid overdepth. The dredged material would be placed at the offshore placement site San Francisco Deep Ocean Disposal Site (SF-DODS), the deep ocean disposal site (Figure 2). The dredging is scheduled to commence in early October 5, 2007. Dredging operations may be conducted 24 hours a day. The duration of dredging and disposal activity would last approximately 30 days. It is possible that project initiation would be delayed beyond this date. Based on previous dredging cycles at the site it is expected that about 16,000 CY additional material will accumulate before the project starts thus producing an estimated volume of about 250,000 CY. Material would be placed at SF-DODS.

Considerable background material on all phases of this proposed project is presented in two documents: the Long-Term Management Strategy (LTMS) Environmental Impact Statement (EIS)/Environmental Impact Report (EIR), and Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan. Both documents are available upon request.

1.2 Purpose and Need for Proposed Action. The purpose of this proposed action is to ensure continued navigability of the Federal Channel by commercial vessels requiring depths at the authorized level. The need for this project is the sediment which naturally settles in the channel to levels which impedes or prevents such navigability must be removed if navigability to authorized depths is to be maintained.

1.3 Study Authority. Under the Water Resources Development Act (WRDA) of 1999, USACE is authorized to deepen the harbor to -50 feet to accommodate the upcoming generation of deep draft ships. The deepening has been completed to the interim depth of -46 feet MLLW. However, there has been considerable shoaling during the deepening process. The proposed action would remove the shoaled material to -46 MLLW.

2.0 Scope of Analysis. The scope of analysis under NEPA will consider direct, indirect, and cumulative environmental factors at the site of dredging, associated surface operations, transport to the placement site, and at the placement site. Factors which will be considered include the substratum, the water column, and atmospheric systems, as well as the human environmental factors including cultural resources, public access, and recreation. The scope of analysis for this proposed activity is the Oakland Inner Harbor channel and SF-DODS.

3.0 Proposed Action and Alternatives

3.1 Proposed Action. Maintenance dredging of the Oakland Inner Harbor Channel to -46 feet MLLW (as described in section 1.1)(Figure 1) and placement of dredged material at SF-DODS.

3.1.1 Maintenance Dredging. Maintenance would be performed using either a hydraulic cutterhead and/or clamshell dredge. Dredging would occur to the depths of -46 feet MLLW plus 2 feet of depth (one foot paid, one foot unpaid). Volumes of accumulated sediment to be removed, based on a survey performed on August 16, 2007 are, approximately 119,000 cubic yards (CY) based on an estimate to the authorized depth, 166,000 CY based on 1 ft paid overdepth, and 233,000 CY based on 1 ft paid and one foot unpaid overdepth. The dredging is scheduled to commence on or about October 4, 2007. Dredging operations may be conducted 24 hours a day. The duration of dredging and disposal activity would last approximately 30 days. Based on previous dredging cycles at the site it is expected that about 16,000 CY additional material may accumulate before the next survey which would take place immediately before dredging for a predicted volume of about 250,000 CY.

3.1.2 Transportation of Dredged Material. Material would be placed into 5,000 CY barges and the barges towed to SF-DODS by ocean going tugs. All loading, transportation and disposal operations would be conducted in accordance with 40 CFR 228.15(1)(3). Dredging operations may be conducted 24 hours a day.

3.1.3 Placement of Dredged Material. SF-DODS is a deep ocean disposal site located 50 miles west of the Golden Gate Bridge over the bottom edge of the continental slope (Figure 2). Although this site is a practicable disposal site, the Long-Term Management Strategy (LTMS) Management Plan guidelines prefer dredged material be disposed of at “beneficial use” sites as a first choice. Such guidelines are available upon request.

3.2 No Action Alternative. The no action (or no dredging) alternative would result in the continued shoaling of the channel, hindering navigation for commercial deep draft vessels. Parts of the entire Harbor would eventually become inaccessible to such vessels. Such inaccessibility might contribute to moderate to significant short-term economic losses to some localized sectors of the economy. Thus, this alternative does not meet the project need. The no action alternative would prevent temporary, minor impacts to the marine substratum, water quality, and air quality resulting from dredging, transportation, and placement activities.

3.3 Alternatives for placement of dredged material

Alternative A: Hamilton Wetland Restoration Project (HWRP): While the dredging aspect of this alternative is identical to that of the proposed action, the transportation and placement aspects differ. The HWRP is a 980-acre wetland restoration site being constructed by the Corps and State Coastal Conservancy. The site, with elevations that average five feet below sea-level, will beneficially reuse about 10.6 million CY of dredged material to raise existing levels to approach marsh plain elevations. Although this placement site is the preferred alternative, it will

not be ready to accept large quantities of dredged material in a timely fashion. For material to be placed at HWRP, they would need to undergo a suite of chemical testing which would take approximately 3-4 months. The Oakland Inner Harbor is currently experiencing critical shoaling which interfere with movement of deep draft vessels. The period of time where dredging may occur and be compliance with the LTMS Programmatic Biological Opinion (BO) ends 30 November annually. The additional testing requirements would result in postponement of the dredging well after 30 November. The ensuing delays would have significant impacts on navigation and the economy of the region. The HWRP is not considered further in the analysis.

Alternative B: Winter Island. Winter Island is located at the confluence of the Sacramento and San Joaquin Rivers and Suisun Bay in Contra Costa County. It is a privately owned and operated site. The dredged material is used to re-nourish the island and maintain five miles of perimeter levees. Dredged material from the Oakland Harbor site exceeds the capacity of Winter Island and therefore is not considered a practical alternative.

Alternative C: San Francisco Bar Channel (SF-08). This site is southwest of the Golden Gate Bridge and is approximately 5,000 feet long. Approximately 900 feet of the southeast portion of SF-08 is located within three nautical miles of the State's coastal zone. SF-08 only accepts sand material; therefore this site is incompatible with the predominantly silty dredged material of Oakland Harbor Channel.

Alternative D: Carquinez Strait Disposal Site (SF-09). The Carquinez disposal site measures 1,000 feet by 2,000 feet, and is located 0.9 miles west of the entrance to Mare Island Straits in eastern San Pablo Bay in Solano County. Because of the greater distance traveled for disposal at SF-09, the increased air emissions and travel costs associated are expected to be greater than those at SF-11. Efficiency is maximized with an alternate disposal site; therefore SF-09 was not considered further.

Alternative E: San Pablo Bay Disposal Site (SF-10). This site is located 3.0 miles northeast of Point San Pedro in southern San Pablo Bay in Marin County, and measures 1,500 feet by 3,000 feet. Because of the greater distance traveled for disposal at SF-10, the increased air emissions and travel costs associated are expected to be greater than those at SF-11. Efficiency is maximized with an alternate disposal site; therefore SF-10 was not considered further.

Alternative F: Alcatraz Disposal Site (SF-11). The Alcatraz Island disposal site is located approximately 1,200-1,500 feet south of the Alcatraz Island in San Francisco Bay. Dredged material proposed for unconfined aquatic in-bay disposal must meet State discharge requirements under Section 401 of the CWA. While maintenance-dredged material has been previously disposed of at SF-11, the site was screened out as an option to comply with target limits outlined in BCDC regulation and the LTMS Management Plan. SF-11 will only be used for emergency dredging disposal.

Alternative G: Montezuma Wetlands Restoration Project (MWRP). This site is located at the eastern edge of Suisun Marsh, adjacent to Montezuma Slough, and is completely isolated from Suisun Bay and its tributaries. Dredged material placed at this site would meet beneficial reuse requirements and contribute to the restoration of approximately 1,820 acres of wetlands. This

disposal site complies with LTMS Management Plan guidelines. There is not only a substantial cost increase associated with placement at MWRP due to additional transportation costs and tipping fees, but also logistical reasons which would preclude its use. In addition, the offloader, the apparatus for transferring transported dredged material to placement site, would be unavailable until at least May of 2008 as it is undergoing retrofitting to be used at HWRP. Thus, use of this site is not feasible and would not meet the project needs.

Alternative H: Middle Harbor Enhancement Area (MHEA). The MHEA site is adjacent to the Port of Oakland Inner Harbor. The site covers an area of 190 acres and its capacity is 5.8 million cubic yards. The dredged material meets the beneficial reuse disposal requirements. This disposal option complies with the LTMS Management Plan guidelines. However, there is not enough remaining capacity to accommodate the dredging this year.

4.0 Impact Assessment

Potential Impacts. Consideration of possible impacts for the proposed alternative is presented below from the perspective of a comparison with the no-project alternative and includes, as appropriate, considerations for dredging, transportation to the placement site, and placement.

Water

(X) Quality - temp, salinity patterns, and other parameters: The most pertinent impact of this proposed project would be temporary impacts to water quality and turbidity. There are no anticipated significant changes to any of the water quality parameters including turbidity, temperature or salinity. Water quality issues of concern are release of certain chemical constituents from the sediment into the water column. While the magnitude of this phenomenon would be relatively small using a cutterhead dredge, and where such resuspension might be limited to a restricted area near the bottom; for a clamshell dredge, the magnitude would be larger and spread through the water column. For the transportation portion of dredging operations, precautions would be in place to minimize the risk of any material being released. At the placement site, these chemicals would also be released into the water column, but rapidly disperse. Further, it is expected that the quantity of dissolved oxygen would decrease in plumes associated with dredged material in the water column. Most organisms in the affected area are capable of surviving a range of dissolved oxygen values and thus the effect is thought to be insignificant. A consideration of cumulative effects for the site to be dredged suggests that any effects caused by dredging would be possibly additional to those caused by natural resuspension due to currents and anthropogenic disturbance from navigation by deep draft vessels stirring up bottom sediments. For the placement site at SF-DODS the material placed from this project would be in addition to that placed by other dredging projects. Monitoring of planktonic populations, seabirds, benthos and marine mammals is a condition of site use at both Oakland Harbor and SF-DODS; results of previous studies are available upon request. Thus, water quality at the dredging and placement sites would be possibly impacted for relatively short periods of time but not in a manner that is believed to be environmentally significant to pelagic species. There are no identified indirect effects. The cumulative effects of disposal at SF-DODS involve the consideration that other dredging projects also dispose of dredged material at SF-DODS. The site is managed by the EPA; the EPA determines the maximum annual disposal

volume allowed at the site. The cumulative effects of disposal at SF-DODS are considered and addressed in the EIS for the site designation. Impacts are not determined to be significant.

(X) Turbidity, suspended particulates: The project would result in temporarily elevated levels of turbidity and suspended particles at the site of dredging and the placement site. Such elevation would be for relatively short periods of time and levels would quickly return to that of ambient levels. While the magnitude of this elevation would be relatively small using a cutterhead dredge, and where such resuspension might be limited to a restricted area near the bottom; for a clamshell dredge, the magnitude would be larger and spread through the water column. For the transportation portion of dredging operations, precautions would be in place to minimize the risk of any material being released. This increase in turbidity and suspended particles would result in adverse effects on biota. However, no long-term impacts related to these factors are expected. A consideration of cumulative effects for the site to be dredged suggests that any effects caused by dredging would be possibly additional to those caused by natural resuspension due to currents and anthropogenic disturbance from navigation by deep draft vessels stirring up bottom sediments. Most organisms tested are very resistant to the effects of sediment suspensions in the water, and aside from natural systems requiring clear water such as coral reefs and some aquatic plant beds, dredging-induced turbidity is not a major ecological concern (USACE Waterways Experiment Station/Engineer Research and Development Center *Technical Report DS-78-5*). The San Francisco Bay is a shallow, naturally turbid estuary. The impacts of dredging related turbidity on organisms living in high background levels of turbidity though difficult to assess, are not considered to be beyond the significance threshold. The cumulative effects of disposal at SF-DODS involve the consideration that other dredging projects also dispose of dredged material at SF-DODS. The site is managed by the EPA; the EPA determines the maximum annual disposal volume allowed at the site. The cumulative effects of disposal at SF-DODS are addressed in the EIS for the site designation. Potential direct, indirect and cumulative effects are not considered significant in light of magnitude and duration of this proposed activity.

(X) Substrate: At the location of dredging, the proposed project would remove benthic infauna and epifauna along with the sediment to be removed. Although this is a highly disturbed habitat due to regular maintenance dredging, organisms in an assemblage similar in species composition and abundance would recolonize relatively rapidly. It is possible that if clamshell dredging is used, some material would be redeposited on nearby non-dredged areas and adversely affect resident organisms by burial and smothering. However, these organisms would similarly recolonize. Indirect effects for dredging sites would include decreased availability of any impacted organisms which may be used as prey for foraging fishes. Similarly, at SF-DODS, a similar pattern of direct and indirect effects are predicted. Cumulative effects at the site of dredging include the consideration that dredging takes place regularly and maintains the community at a disturbed state.. . In neither case are cumulative effects thought to significantly adversely affect resident biota. The cumulative effects of disposal at SF-DODS involve the consideration that other dredging projects also dispose of dredged material at SF-DODS. The site is managed by the EPA; the EPA determines the maximum annual disposal volume allowed at the site. The cumulative effects of disposal at SF-DODS are addressed in the EIS for the site designation.

() **Currents, circulation or drainage patterns:** NA

(X) **Mixing zone (in light of the depth of water at the disposal site; current velocity, direction and variability at the disposal site; degree of turbulence; water column stratification; discharge vessel speed and direction; rate of discharge; dredged material characteristics; number of discharges per unit of time; and any other relevant factors affecting rates and patterns of mixing):** These concerns are discussed above.

() **Flood control functions:** NA

() **Storm, wave and erosion buffers:** NA

() **Erosion and accretion patterns:** NA

() **Aquifer recharge:** NA

() **Base flow:** NA

() **Water supplies, conservation:** NA

Aquatic Habitat

(X) **Geomorphology:** Dredging would remove material from the substratum thus altering the surface characteristics. Additionally, slumping of material adjacent to the immediate area of dredging would also be expected to take place. The surface characteristics at the placement area would also be changed.

(X) **Vegetation:** There is no vegetation in or in the immediate vicinity of the dredging or placement locations. The historic vegetation at the site had been removed during site construction. It is possible that any seaweeds growing on docks, pilings, or other hard structures near the dredging operation could be affected by increased turbidity or water quality. However, those seaweeds are acclimated to a highly disturbed habitat and consist in part of non-native species. Any such effect is thought to be insignificant. There is no vegetation at the placement site nor has there been previously.

(X) **Organisms:** Direct, indirect, and cumulative effects are covered above, in appendices concerning species occurring or having potential to occur in the proposed project site.

The Central Bay is a highly dynamic marine region due to strong tidal currents. The benthic substrate is comprised of coarse to fine sediments and rocky outcrops. The dominant benthic species in Central Bay is the clam *Macoma balthica*, particularly in the intertidal areas.

Common subtidal species include the mollusks *Mya arenaria*, *Gemma*, *Musculista senhousia*, and *Venerupis philippinarum*; the amphipods *Ampelisca abdita*, *Grandierella japonica*, and *Corophium sp.*; and the polychaetes *Streblospio benedicti*, *Glycinde sp.*, and *Polydora sp.*

SF-DODS is a deep ocean disposal site located 50 miles west of the golden gate over the bottom edge of the continental slope. Depths at the site range from 2500 to 3200 meters. Flora and fauna at the site are typical pelagic and benthic species of central offshore California. There are three distinct seasons at the site delineated by oceanographic conditions.

Operational restrictions, which are most commonly seasonal, are applied to dredging projects to protect sensitive aquatic organisms from the physical and chemical alterations of aquatic habitats caused by dredging and disposal operations. Concerns are usually focused on the ecology of specific life-history stages, such as pelagic eggs and larvae of fishes and shellfishes with limited avoidance capabilities that are dependent on local hydrodynamic conditions for transport into and out of dredging activity areas. These organisms are considered to be more susceptible to dredging effects than motile juveniles and adults. Demersal eggs and sessile or nonmotile life-history stages are perceived as particularly susceptible because of their longer exposure to elevated suspended sediments or due to smothering by increased sedimentation. Concerns for motile fish and shellfish life-history stages focus upon direct effects of suspended sediments on respiration, feeding, and movement patterns. These organisms are expected to avoid the project area and any of the temporary negative effects it may have.

Endangered, Threatened, and Species of Concern: Following is a consideration of endangered, threatened, and species of concern provided by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS). Species from these lists that occur at the project site are discussed below. More detailed species accounts are presented in the Final Supplemental Environmental Impact Report / Environmental Impact Statement Oakland Harbor Deep Draft Navigation Improvements, June 1994.

Fishes: The Southern Distinct Population Segment of green sturgeon was listed as a threatened species in April 2006. The primary threat to green sturgeon includes habitat loss and blockages to spawning sites in the Sacramento River. Other threats include decreased water flow, water quality impacts, local fishing, and exotic species. The Corps is working with NMFS to prepare a programmatic Biological Opinion.

The winter-run chinook salmon originating in California's Sacramento River was listed as threatened in 1990, but was reclassified to endangered in 1994. The threat to the productivity and existence of this species is largely due to water diversion projects on the Sacramento River. The San Francisco District prepared a Biological Assessment (January 1991) assessing the effects of maintenance dredging the Guadalupe Slough on winter-run chinook salmon. This assessment concluded that the effects of dredging and disposal operations on winter-run chinook are minimal, if occurring at all.

Sacramento winter-run chinook occur occasionally in Oakland Harbor during migration season (November to May) and at SF-DODS. The threatened coastal steelhead (both Central Valley and Central California Coast ESU's) pass through the areas as well on their way to their home streams in the South Bay from June through May. Coho salmon also occur in San Francisco Bay during fall months. Central Valley Spring-run chinook may also occasionally stray into the Oakland Harbor area while migrating in and out of the Sacramento Delta. All of these species occur at SF-DODS. Oakland Harbor is not located within these species' main migration routes and accordingly, few individuals are expected to occur in the Harbor during dredging, and these would be likely to avoid the immediate dredging site where effects could occur. These fish are expected to avoid the brief disposal plume at SF-DODS as well. In addition, the EIS addressing the designation of SF-DODS found that potential effects such as impaired visibility for foraging and reduced food availability within the area of disposal, which would alter normal feeding or

passage activities, would be temporary and localized at the disposal site. Impacts on winter-run chinook, coho, and steelhead are not expected. The benthic community is expected to recover quickly enough following dredging that there should be no long-term effect on potential food sources for the salmon in the Harbor. The potential for impacts is further reduced because migrating adult chinook salmon have largely ceased to feed by the time they enter the Bay on their upstream migration. Because there are no chinook, coho, or steelhead spawning areas near or upstream of Oakland Harbor, juvenile salmon and steelhead are not expected in the Harbor.

US FWS and NMFS have also indicated that the project could affect critical habitat, either designated or proposed, for Central Coast steelhead, Winter-run Chinook salmon and Central Valley Fall-run chinook salmon. The dredging portion of this project would not impact the critical habitat for either Chinook or Coho, as Oakland Harbor lies south of the San Francisco/Oakland Bay Bridge, which is the southern boundary in San Francisco Bay for these species' entire critical habitat. However, barges transporting dredged material from Oakland Harbor to SF-DODS would pass through critical habitat for both of these species as they transit the area between the Bay Bridge and the Golden Gate Bridge. One of the conditions for use of the SF-DODS is that no material shall be allowed to spill or leak from barges at any time enroute to or from the site. Therefore, there would be no water quality impacts within any critical habitat as a result of dredged material transportation. The increase in vessel traffic (less than 5 barges per day) would be insignificant.

Oakland Inner Harbor lies within the boundaries of designated Central Coast Steelhead critical habitat. Temporary turbidity impacts would occur as mentioned above. The harbor would not be altered in any appreciable way from its current condition.

The LTMS biological opinion allows maintenance dredging to occur in Oakland Harbor without further consultation for steelhead from June 1st to November 30th. It is possible that the dredging could extend into the window protecting steelhead. This would not occur without further consultation with and approval by NMFS.

The Pacific herring *Clupea harengus pallasii*, while not a listed species, is a species of concern in San Francisco Bay. The herring is a pelagic schooling marine species that uses the Bay for spawning and nursery habitat. While adult fish are in the Bay, they support an important commercial fishery.

The California Department of Fish and Game (CDFG) recommend that dredging should not be conducted from December 1 to March 1, providing a window for peak herring spawning activity. However, they have granted waivers of the window for specific projects. Such a waiver is in place for the -50 ft project, which is ongoing in the area. These waivers have been granted on the conditions that a qualified observer is aboard the dredge during all dredging operations, that dredging would cease when spawning herring are sighted within 200 meters of the dredge, and that if a spawn is documented, the affected area would not be dredged for at least two weeks. This O&M project may not be completed before the spawning window. If the project is delayed and was to extend into the spawning season, the Corps would coordinate with CDFG over the effect on herring spawning activities. A request to CDFG for an extension of dredging activity

into the herring window has been made. Dredging would not occur in the window without approval.

Birds: The California least tern is listed by both the state of California and the federal government as an endangered species. The least tern is a piscivore, capturing small fish by diving into the water from low flight. The least tern breeds in California from mid-May to August. Nesting colonies are located near feeding areas and need to be relatively free from disturbance. These colonies are located on open flat beaches, sand flats, and bare dirt areas with sparse vegetation. Nesting sites for least terns exist at a sandy upland site at the Oakland International Airport and along the runway apron at the Alameda Naval Air Station (NAS). The nesting colony of least terns has been active at the NAS since at least 1976 and has been increasing in size. This is the largest known colony north of San Luis Obispo County. The number of nests has varied from about 40 early on to 424 in 2005. Least terns have been observed to forage primarily along the breakwaters and shallows of the southern shoreline of NAS Alameda and in Ballena Bay during May through August. The least tern generally migrates from the San Francisco Bay Area in August and winters south of the United States. Most, if not all of the population would have left for their wintering ground by the time dredging is scheduled to commence. No nesting habitat would be disturbed by the project.

The California brown pelican was listed as endangered in 1970. The brown pelican migrates as far north as Oregon in the warmer weather to feed and molt. Anacapa Island is the northern limit of their breeding range. Brown pelicans are common in the study area, and have been observed to forage in Oakland Harbor. These birds are likely to avoid the immediate dredging area during dredging operations, with an insignificant effect on their feeding success.

The remainder of the listed birds requires salt, tidal, or freshwater marsh and upland habitat such as scrub or open range. These habitats do not occur in the project area and the candidate species would not be affected.

Mammals, Reptiles, Amphibians, Invertebrates, and Plants: The remainder of the listed species provided are terrestrial or fresh water organisms and are not found in a marine subtidal habitat like the project area. However, the provided list did not contain a number of listed species that occur at the SF-DODS disposal site. These include humpback, blue, fin, and sperm whales, leatherback turtle, and Steller's sea lion. As mentioned above, the dredged material plume during disposal would reduce visibility at the disposal site temporarily having a potential effect on foraging ability and food availability at the site. These listed species forage throughout the region off the central California coast, so that any temporary reduction in food supply in an area as small as the disposal site would be insignificant.

Summary: In conclusion, impacts on endangered, threatened, and sensitive species or critical habitat at Oakland Inner Harbor are expected to be insignificant or not occurring at all. Timing of dredging operations to avoid sensitive periods, coupled with avoidance and limited use of the dredging site by such species during dredging operations, would render negligible any short-term effects, such as those of turbidity, food reduction, or toxicity from or bioaccumulation of contaminants. Long-term effects, such as reduction in benthic or pelagic based food resources, are also expected to be negligible due to the fairly rapid recovery expected in these communities.

Additional material is contained in the Final Supplemental Environmental Impact Report / Environmental Impact Statement Oakland Harbor Deep Draft Navigation Improvements, June 1994 (available upon request). This project is compliant with the terms and conditions established in the NMFS and FWS Biological Opinions prepared for the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, California issued in September 1998 and March 1999 respectively.

Essential Fish Habitat Species of Concern: The following fish species are listed in the FMP for areas between the San the Bay Bridge to the San Mateo Bridge: Northern anchovy, Pacific sardine, English sole, Starry flounder, Leopard shark, Spiny dogfish, Brown rockfish, Cabezon, Big skate, Soupfin shark, Sand sole, and Lingcod. Impacts to be considered under the aspects of EFH include temporary adverse impact on FMP species resulting in avoidance of immediate area of dredging. Impacts to EFH species of concern are those of ESA species presented above. We conclude maintenance dredging is likely to have temporary, adverse, localized effects on EFH which are more than minimal but less than substantial.

(X) Special aquatic sites (wetlands, mudflats, coral reefs, pool and riffle areas, shallows, sanctuaries and refuges, other): None occur in the dredging or placement site.

Terrestrial Habitat

() Geomorphology: NA

() Vegetation: NA

() Organisms: NA

(X) Endangered or Threatened Species: Maintenance dredging and dredged material placement would not adversely affect any species listed as threatened or endangered, or their critical habitat pursuant to the Endangered Species Act. Additional information and discussion of ESA compliance may be found in a section 8 of this document.

(X) Air Quality: Air quality issues for the proposed project stem mainly from transportation by scows to the placement site as the maintenance dredging would take place using an electric powered dredge. Direct effects include various byproducts of the combustion of fossil fuel. Indirect effects to air quality include possible odors associated with sediment as it is exposed to the atmosphere. In comparison to other such sources of possible impairment to air quality, the contribution by the proposed project is considered to be insignificant. Air quality issues are important in the Oakland Harbor area due to possible impairment by commercial vehicles transporting goods from the Port to other areas as well as private vehicles.

Geology and Soils

(X) Contaminants in dredge or fill material: There are no known concerns regarding possible contaminants. In consultation with the EPA, the Corps has obtained a Tier I determination for the material to be dredged. A Tier I consultation involves a consideration of the history of previous sediment testing. In the past, Oakland Harbor maintenance dredged sediments have been deemed suitable for aquatic disposal. The objective of the testing program

is to determine whether disposal in the designated ocean disposal site can occur without causing unreasonable degradation or endangerment of the environment. The regulations and criteria, however, are based on the premise that a certain amount of environmental degradation or change is acceptable. The Tier 1 determination was granted in consideration of that history. The degree of change is linked to water quality criteria and limiting permissible concentrations of the dredged material or toxic constituents below which impacts are believed to be insignificant.

Other:

() Mineral Resources: NA

(X) Noise: NA While it expected there would be noise generated during dredging and transportation, the noise level would be comparable with that of other nearby activity including ship traffic and port operations.

(X) Recreation (boating, fisheries, other): During the period of dredging operations, there would be minor disruptions of access and possibly right-of-way to other vessels because of the presence of project-related watercraft. There are no anticipated significant direct or cumulative effects.

() Land use classification: NA

() Transportation and traffic: NA

(X) Navigation: During the period of dredging operations, and possibly transportation, there could be minor disruptions of access and possibly right-of-way to other vessels because of the presence of project-related watercraft. There are no anticipated significant direct or cumulative effects. This project would have long-term beneficial impacts to some navigation by commercial deep draft vessels.

() Agricultural Resources, Prime and unique farmland: NA

(X) Aesthetics/visual impact: Temporary minor impacts may result from the presence of equipment used in dredging, transportation of dredged material, and placement of dredged material and also from possible discoloration of the water due to sediment plume. The site of dredging is used mainly for industrial shipping activities; any additional visual adverse effects would be minimal.

() Public facilities, utilities and services: NA

(X) Public health and safety: All federal, state, and local statutes would be followed. There are no health or safety risks in any aspect of this project

(X) Hazardous and toxic materials: All federal, state, and local statutes would be followed. There are no risks of hazardous and toxic materials in any aspect of this project.

(X) **Energy consumption or generation:** All aspects of dredging operations would consume energy of varying proportions of non-renewable and renewable.

(X) **Cultural and historical Resources**

Historic monuments, parks, national seashores, wild and scenic rivers, wilderness area, research sites, etc: There are no significant cultural or historical resources that the proposed project would affect.

() **Archaeological site: NA**

(X) **Socio-economic:** Due to existing shoaling, the Inner Harbor channel is currently experiencing some restrictions on movement of deeper draft vessels. The no-action alternative would result in further shoaling and restrictions of the type of vessel movement through the Port. The no-action alternative would have a significant socio-economic effect to the region.

(X) **Environmental Justice:** The proposed project is in a largely industrial area thus not directly or indirectly affecting any group, for example people who rely on subsistence fishing, more than another. There are no known environmental justice issues associated with this proposed project or the project area.

(X) **Growth inducing impacts - community growth, regional growth:** The proposed maintenance dredging would not further induce growth.

(X) **Conflict with land use plans, policies or controls:** The project is consistent with land use plans. The project area has been in continuous use as is for a number of decades.

(X) **Other anticipated changes to non-jurisdictional areas that have been determined to be within the Corps' NEPA scope of analysis:** SF-DODS is under the jurisdiction of the EPA.

(X) **Irreversible changes, irretrievable commitment of resources:** There are no irreversible changes or commitments. If in the future it is decided that the authorized channel depths are no longer required, they would naturally shoal in or could be filled and restored or rehabilitated to their pre-disturbance habitat type. The proposed project is independent and does not result in irretrievable commitment of resources.

(X) **Other Cumulative effects not related to the proposed action:** Minor cumulative impacts would be covered in the EIS for the LTMS and the SF-DODS site designation EIS (available on request).

1. Occurred on-site historically: The site has been subject to major disturbance in historical times, including removal of original saltmarsh and or mudflats, building and operation of port facilities, and navigation. These produced similar effects to the proposed action, including negative impacts on air quality and water quality

2. Likely to occur within the foreseeable future: The site will be deepened to 50 feet in the near future. Similar short-term impacts would occur at the site of dredging,

3. Contextual relationship between the proposed action and (1) and (2) above: The previous and projected activities have already diminished the original habitat functions such that future deepening and maintenance activities would not add a significant incremental cumulative impact to this project site.

5.0 Summary of indirect and cumulative effects from the proposed action. The indirect and cumulative effects from maintenance project proposed are minimal to insignificant in comparison to effects produced by natural processes. Further, long term projects are for the impacts to be further diminished as the goals of the LTMS are achieved.

() Other: NA

6.0 Environmental Compliance

A summary of environmental compliance is presented in the table starting on the next page. Detailed compliance information, supporting reports, and environmental compliance history for this project can be found in Appendix A - Environmental Compliance.

Statute	Status of Compliance
National Environmental Policy Act (NEPA) of 1969 (42 USC 4341 <i>et seq</i>)	This EA has been prepared for continuing compliance with NEPA. All agency and public comments will be considered and evaluated. If appropriate, a FONSI will be signed with a conclusion of no significant impacts which would complete compliance with NEPA.
Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR 1500-1508) dated July 1986	
Clean Air Act (42 USC 7401 <i>et seq</i>)	In accordance with 40 CFR § 51.853(c)(2)(ix), the Corps has determined that the proposed agency action is exempt from the requirement to prepare a conformity determination with the State Implementation Plan under the Clean Air Act because the project consists of maintenance dredging, no new depths are required, and disposal would be at approved disposal sites.
Clean Water Act of 1972 (33 USC 1251 <i>et seq</i>)	The San Francisco Bay Regional Office of the California Water Quality Control Board (RWQCB) granted water quality certification for this project as Order NO.R2-2007-0020, <i>Updated Waste Discharge Requirements</i> . This project is in compliance with the waste discharge requirements cited in this document. The project is in compliance with the requirements of the 404(b)(1) Guidelines and ODA criteria.
Rivers and Harbors Act of 1899 (33 USC 403)	Compliance with RHA is accomplished by this EA.
Executive Order 11990, Protection of Wetlands, (42 FR 26961, 1977)	No jurisdictional wetlands are expected to be affected by this project.
National Oceanic and Atmospheric Administration Federal Consistency Regulation (15 CFR 930)	USACE submitted a blanket consistency determination (CD) for all in-bay maintenance dredging and disposal operations of federal navigation channels in the San Francisco Bay to the San Francisco Bay Conservation and Development Commission (BCDC). This letter was adopted as <i>CN 0-06</i> on March 29, 2007. Thus, the following is complied with: Coastal Zone Management Act of 1972 (Public Law 92-583, 86 Stat. 1280) and the National Oceanic and Atmospheric Administration (NOAA) regulation 15 CFR 930, <i>Federal Consistency With Approved Coastal Management Programs, As Amended</i> .
Coastal Zone Management Act of 1972, 16 USC 1451 <i>et seq</i>	
California Coastal Act of 1976	
Endangered Species Act of 1973 (16 USC 1531, as amended)	An inventory of listed and proposed endangered and threatened species and candidate species that may occur in the project area was requested from both the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS). These inventories are provided in an Appendix A. More detailed species accounts are presented in the <i>Final Supplemental Environmental Impact Report / Environmental Impact Statement Oakland Harbor Deep Draft Navigation Improvements, June 1994</i> . This project is compliant with the terms and conditions established in the NMFS and FWS Biological Opinions prepared for the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, California issued in September 1998 and March 1999 respectively

Fish and Wildlife Coordination Act (16 USC 661-666c) Magnuson-Stevens Fishery Conservation and Management Act Fishery Conservation Amendments of 1996, (16 USC 1801 <i>et seq</i>) – Essential Fish Habitat (EFH) Migratory Bird Treaty Act (16 USC 703-711) Marine Mammal Protection Act (16 USC 1361 <i>et seq</i>) National Marine Sanctuaries Act (16 USC 1431 <i>et seq</i>) Marine Protection Research and Sanctuaries Act of 1972 (33 USC 1401 <i>et seq</i>) Or Ocean Dumping Act (ODA)	NA A draft EFH analysis has been completed and is available upon request. . No impacts to migratory birds are expected No impacts to marine mammals are expected. Neither the dredging nor disposal would take place in or near a Marine Sanctuary, however, transportation of dredged material would take place through the Gulf of the Farallones and Monterey Bay Marine Sanctuaries. The proposed project is in compliance with environmental impact criteria and restrictions relating to critical areas on the use of EPA designated SF-DODS pursuant to section 102(c) of ODA. (See appendix C)
National Historic Preservation Act (16 USC 470 and 36 CFR 800): Protection of Historic Properties Executive Order 11593: Protection and Enhancement of the Cultural Environment Archaeological and Historic Preservation Act of 1974, (16 USC 469 <i>et seq</i>) Abandoned Shipwreck Act of 1987, (43 USC 2101 <i>et seq</i>) Submerged Lands Act, (Public Law 82-3167; 43 USC 1301 <i>et seq</i>)	Per 36CFR 800.3(1), the proposed project has no potential to cause effects, and therefore the agency official has no further obligation under section 106 of the NHPA. NA NA. None occur on site. None occur on site. None occur on site.

7.0 Agencies Consulted and Public Notification

The notification process includes mailing a project notice to agencies and other stakeholders regarding the availability of this EA. A list of agencies is provided in Appendix B.

7.1 Summary of comments

(to be completed on receipt of comments)

A. Federal agencies:

- 1) U.S. Environmental Protection Agency (EPA Region 9)
- 2) U.S. Coast Guard (USCG)
- 3) Advisory Council – Historic Preservation

B. State and local agencies:

- 1) Bay Conservation and Development Commission (BCDC)
- 2) California Coastal Commission (CCC)
- 3) State Lands Commission
- 4) State Historic Preservation Officer
- 5) Regional Water Quality Control Board Region

C. Other organizations and individuals

7.2 Evaluation and incorporation of comments

8.0 Mitigation Measures: Considerable information on mitigation measures is available in (1) the Long-Term Management Strategy (LTMS) EIS/EIR; (2) Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan; (3) site designation for SF-DODS; and (4) the Oakland Harbor Improvement (-50 Foot) Project Final Environmental Impact Statement/Environmental Impact Report. These documents are available upon request. A summary of the highlights of mitigation measures is included in Appendix C.

9.0 Determinations and Statement of Findings

A Finding of no Significant Impact (FONSI) (33 CFR Part 325) is anticipated being prepared and included after agency and stakeholder comments to this Environmental Assessment. A draft FONSI is attached.

DRAFT
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
ENVIRONMENTAL ASSESSMENT
OAKLAND INNER HARBOR MAINTENANCE DREDGING
OCTOBER 2007

I. Proposed Action. The proposed action is the authorized maintenance dredging by the U.S. Army Corps of Engineers (USACE) of portions of Oakland Inner Harbor for Fiscal Year (FY) 2008. The channel would be dredged to a depth of -46 feet MLLW with two feet of allowable over depth (one paid, one non-paid), generating an estimated 250,000 cubic yards (CY) of material to be removed. The resulting dredged material will be disposed of at the San Francisco Deep Ocean Disposal Site (SF-DODS). This project is described in the Environmental Assessment (EA) for the Oakland Inner Harbor Maintenance Dredging project, Oakland, Alameda County, California, which is incorporated herein.

II. Additional References. (1) Long-Term Management Strategy (LTMS) EIS/EIR; (2) Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan; (3) Site Designation for SF-DODS; and (4) Oakland Harbor Improvement (-50 Foot) Project Final Environmental Impact Statement/Environmental Impact Report; (5) U.S. Army Corps of Engineers. 1975. Final Composite Environmental Statement for Maintenance Dredging, Existing Navigation Projects, San Francisco Bay Region, California. USAED, San Francisco. Loose-leaf pub. n.p.

III.. Factors Considered. Factors considered for this FONSI are impacts on air and water quality, fish and wildlife, endangered/threatened species and marine mammals, navigation, aesthetics, dredge soil contaminants, and commercial/recreational fisheries. In addition, indirect and cumulative impacts were addressed in the attached Environmental Assessment for this action.

4. Conclusion. Based on the information obtained in the preparation of the Environmental Assessment for this proposal, the mitigation measures identified in the document, and the associated permits, it is concluded the proposed action will not have a significant impact on the quality of the human environment. Therefore, the preparation of an Environmental Impact Statement is not required.

Date

Craig W. Kiley
Lieutenant Colonel, U.S. Army
Commanding

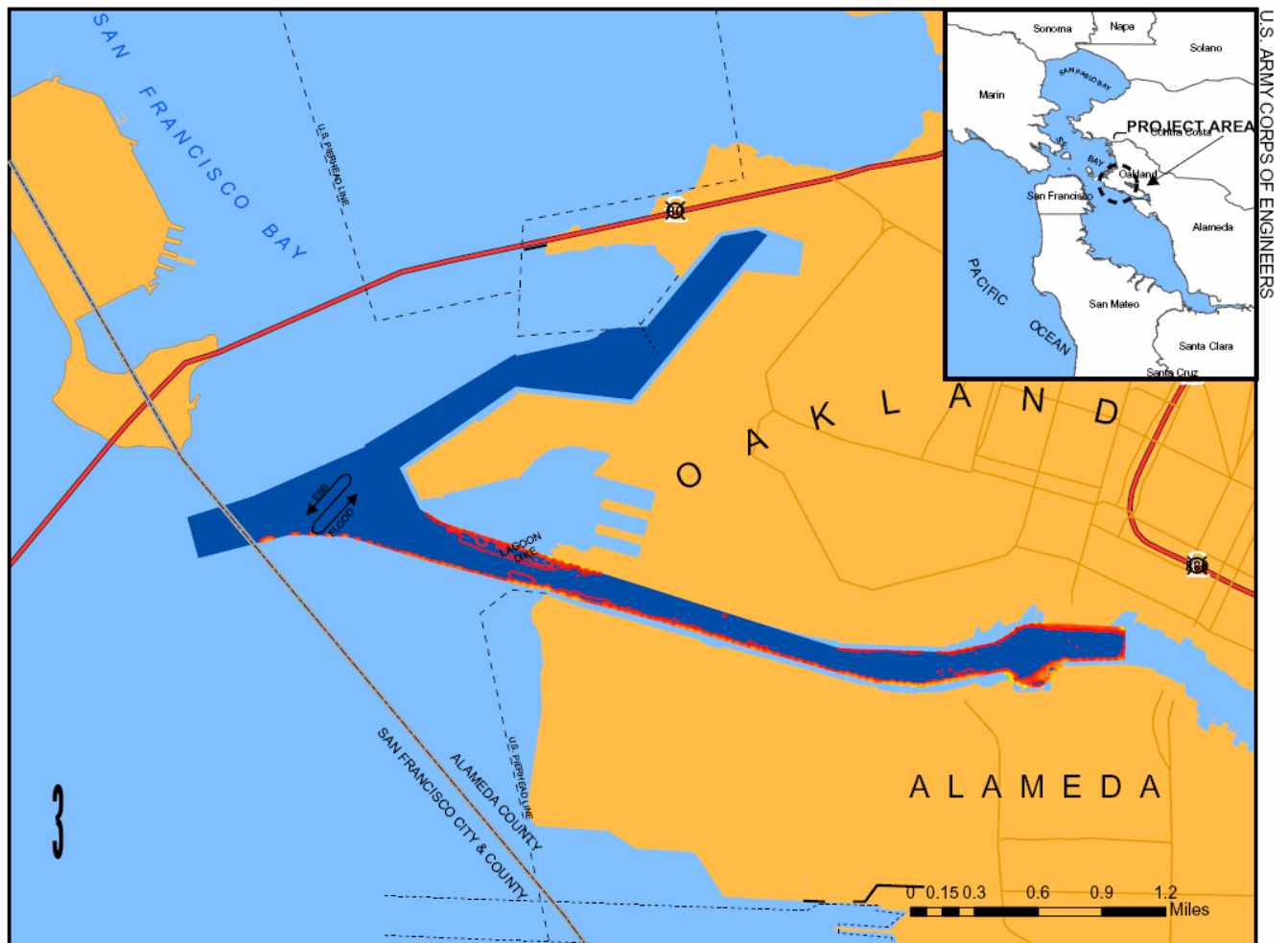


Figure 1. Location of proposed maintenance dredging. Red highlighting in indicates those areas shoaled to a depth less than 46 feet which would be dredged.

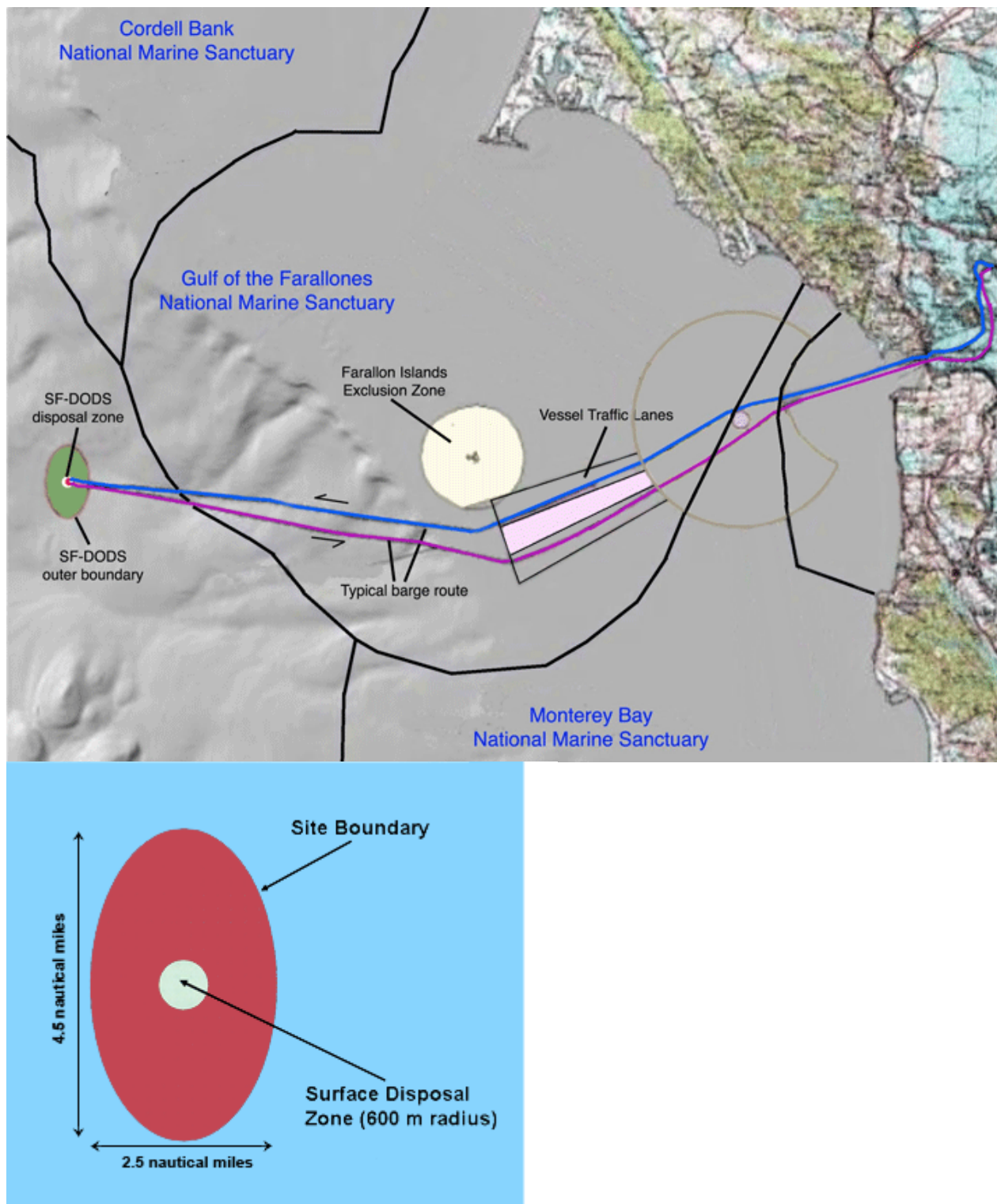


Figure 2. SF Deep Ocean Disposal Site (SF-DODS) location and vessel route. Note that SF-DODS center coordinates are 37° 39.0 min N, 123° 29.0 min W (NAD 83).

Appendix A - Environmental Compliance

1.0 Project history of NEPA compliance and other associated studies

Dredging operations have been conducted in Oakland Harbor since the mid 1800s. In 1859 the Inner Harbor was opened to commerce when a sandbar was dredged from the harbor's mouth. In recent years it has become necessary to deepen the harbor to accommodate new deep draft commercial vessels. Maintenance dredging occurs on an annual basis. In 1984 the *Oakland Inner Harbor California, Deep Draft Navigation Final Feasibility and Environmental Impact Statement* was prepared by USACE. An optimum depth of -42 feet MLLW was indicated. In 1992 an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) were prepared to deepen a portion of the Oakland Inner Harbor channel from -35 feet MLLW to -38 feet MLLW. This portion of the harbor was deepened in September of 1992, removing approximately 517,000 CY of sediment. In June of 1994 the *Final Supplemental Environmental Impact Report / Environmental Impact Statement Oakland Harbor Deep Draft Navigation Improvements* was prepared by USACE and the Port Of Oakland. In May of 1995 construction began, deepening the channel to -42 feet MLLW in both the Inner and Outer Harbors. The deepening was completed in 1998. Approximately 6.7 million CY were removed with material placed at Sonoma Baylands (a marsh restoration site), SF-DODS, and an upland site. The WRDA of 1999 authorized the Corps to deepen the harbor to -50 feet MLLW to accommodate the upcoming generation of deep draft container ships. In May 1998 the *Oakland Harbor Improvement (-50 Foot) Project Final Environmental Impact Statement/Environmental Impact Report* was released. Dredging began in September 2001. Due to funding constraints, the project is continuing to be implemented. The Inner and Outer Harbors and Entrance channel were deepened to -46 ft MLLW in 2004-2005. The proposed maintenance dredging would remove material which has shoaled in the Inner Harbor above -46 ft.

Maintenance dredged material from the Oakland Harbor has historically been disposed of at the Alcatraz Disposal Site (SF-11). However, as a participant in the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS), the Corps has committed to reducing the amount of dredged material disposed of in the Bay and also to the concept of upland reuse.

Sediment Testing Evaluation: The objective of the testing program is to determine whether disposal in the designated ocean disposal site can occur without causing unreasonable degradation or endangerment of the environment. The regulations and criteria, however, are based on the premise that a certain amount of environmental degradation or change is acceptable within the boundaries of the disposal site. The degree of change is linked to water quality criteria and limiting permissible concentrations of the dredged material or toxic constituents below which impacts are believed to be insignificant.

In consultation with the EPA, the Corps has obtained a tier I determination for the material to be dredged. In the past, Oakland Harbor maintenance dredged sediments have been deemed suitable for aquatic disposal. The tier I determination was granted in consideration of this history. In conclusion, impacts to water quality at SF-DODS and Oakland Inner Harbor are expected to be insignificant.

2.0 Endangered Species Act (ESA):

ESA compliance for the proposed project is consistent with a programmatic Biological Opinions for the San Francisco Bay Long Term Management Strategy (SF Bay LTMS) with NMFS and US FWS (available upon request). Since maintenance dredging would be complete before November 30, 2007, potential impacts to listed species would be avoided. In the event the project extends beyond this date we will consult to NMFS and US FWS, as appropriate.

3.0 EFH Assessment

Essential Fish Habitat: NMFS is responsible for the protection of Essential Fish Habitat (EFH) pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The Magnuson-Stevens Fishery Conservation and Management Act mandates that federal agencies conduct an EFH consultation with NMFS regarding any of their actions authorized, funded, or undertaken that may adversely effect essential fish habitat (EFH). An adverse effect means any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The purpose of this process is to support the maintenance of sustainable fisheries. The Corps is currently coordinating a programmatic consultation under the MSFCMA under the auspices of the San Francisco Bay Long Term Management Strategy (SF Bay LTMS) for the following Fisheries Management Plans (FMP): Pacific Groundfish FMP, Coastal Pelagic FMP, and Pacific Salmon FMP. The Corps has previously prepared an EFH assessment for the Operations and Maintenance Dredging of Oakland Inner Harbor which was similar to the proposed action in FY06. Impacts to be considered under the aspects of EFH include temporary adverse impacts on FMP species resulting in avoidance of immediate area of dredging and placement. A comprehensive EFH assessment document for the LTMS O&M projects is currently under development. USACE concludes that the maintenance dredging is likely to have temporary adverse localized effects on EFH which are more than minimal but less than substantial.

4.0 Clean Water Act (CWA)

Section 404(b)(1) Guidelines

As defined in the regulations, the dredging activities do not result in discharge of dredged material. 33 CFR Part 323.2 (d). Disposal activities would occur within the territorial seas. The proposed project is in compliance with 404(b)(1) Guidelines. The proposed project is the least environmentally damaging practicable alternative (LEDPA). All of the appropriate and practicable conditions listed in III.B.2.b.4 to minimize pollution or adverse effects to the affected ecosystem have been included as part of the proposed action or will be followed as part of conditions of the work.

Sec 401 – Water Quality Certification or Waiver

Water Quality Certification: Section 401 of the CWA requires the District Engineer to obtain State water quality certification or waiver for the discharge of dredged material in Section 404 waters. The San Francisco Bay Regional Office of the California Water Quality Control Board (RWQCB) granted water quality certification for this project as Order NO. R2-2007-0020,

Updated Waste Discharge Requirements For: U.S. Army Corps Of Engineers, San Francisco District Maintenance Dredging Program, 2007 Through 2009. This project is in compliance with the waste discharge requirements cited in this document.

5.0 Clean Air Act (CAA)

Conformity Analysis/Determination

In accordance with 40 CFR § 51.853(c)(2)(ix), the Corps has determined that the proposed agency action is exempt from the requirement to prepare a conformity determination with the State Implementation Plan under the Clean Air Act because the project consists of maintenance dredging, no new depths are required, and disposal would be at approved disposal sites.

6.0 Coastal Zone Management Act (CZMA)

Consistency of Determination

USACE submitted a blanket consistency determination (CD) for all in-bay maintenance dredging and disposal operations of federal navigation channels in the San Francisco Bay to the San Francisco Bay Conservation and Development Commission (BCDC). This letter was adopted as *Amended Letter of Agreement for Consistency Determination No. CN 11-03* on March 29, 2007. The letter states that this project is consistent with the Bay Plan and no further action is required to comply with the Coastal Zone Management Act of 1972 (Public Law 92-583, 86 Stat. 1280) and the National Oceanic and Atmospheric Administration (NOAA) regulation 15 CFR 930, *Federal Consistency With Approved Coastal Management Programs, As Amended*.

7.0 Marine Protection Research and Sanctuaries Act of 1972 (Ocean Dumping Act).

Five general criteria are used in the selection and approval of ocean disposal sites for continuing use (40 CFR 228.5). First, sites must be selected to minimize interference with other activities, particularly avoiding fishery areas or major navigation areas. Second, sites must be situated such that temporary (during initial mixing) water quality perturbations caused by disposal operations would be reduced to normal ambient levels before reaching any beach, shoreline, sanctuary, or geographically limited fishery area. Third, if site designation studies show that any interim disposal site does not meet the site selection criteria, use of such site shall be terminated as soon as an alternate site can be designated. Fourth, disposal site size must be limited in order to localize for identification and control any immediate adverse impacts, and to facilitate effective monitoring for long-range effects. Fifth, EPA must, wherever feasible, designate ocean dumping sites beyond the edge of the continental shelf and where historical disposal has occurred. As described in the Final EIS, SF-DODS was specifically selected to comply with these general criteria. The SF-DODS meets these 5 general criteria. First, SF-DODS is not a significant fishery area, is not a major navigation area and otherwise has no geographically limited resource values that are not abundant in other parts of this coastal region. Second, dredged material deposited at the site is not expected to reach any significant area such as a marine sanctuary, beach, or other important natural resource area. Third, SF-DODS is not an interim disposal site. Fourth, the site has an appropriately limited size and has been selected to allow for effective monitoring. Fifth, the site is beyond the continental shelf and is located in an area historically used for dumping. The proposed project is in compliance with environmental impact criteria and restrictions relating to critical areas on the use of EPA designated SF-DODS pursuant to section 102(c) of ODA

Appendix B - Agency and Public Participation

1.0 Mailing Lists

California Coastal Commission

ATTN: Larry Simon
45 Fremont, Suites 1900 & 2000
San Francisco, CA 94105-2219

California Department of Fish and Game

ATTN: George Isaac
20 Lower Ragsdale Drive #100
Monterey, CA 93953

Milford Wayne Donaldson

State Historic Preservation Officer
P.O. Box 94296
Sacramento, CA 94296-0001

San Francisco Regional Water Quality Control Board

ATTN: Ms. Beth Christian
Suite 1400
1515 Clay St
Oakland, CA 94612-1499

National Marine Fisheries Service

501 West Ocean Blvd
Long Beach, CA 90802-4213

National Marine Fisheries Service

777 Sonoma Ave.
Santa Rosa, CA 95404-4731

U.S. Environmental Protection Agency, Region IX

Dredging & Sediment Management Team
ATTN: Brian D. Ross
75 Hawthorne Street
San Francisco, CA 94105

U.S. Fish and Wildlife Service

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003

California State Lands Commission

Ms. Mary Howe
Public Land Management Specialist

100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Port of Oakland

530 Water Street
Oakland, CA 94607

California State Coastal Conservancy

1330 Broadway, 11th Floor
Oakland, CA 94612-2530

San Francisco Bay Conservation and Development Commission

50 California Street, Suite 2500
San Francisco, CA 94111

U.S. Coast Guard

District 11
Building 42, Coast Guard Island
Alameda, CA 94501

2.0 Agency Comments.

Agency comments will be included after responses are received and reviewed.

3.0 Public Comments/Responses.

Public comments will be included after responses are received and reviewed.

Appendix C – Mitigation Measures and Standard Conditions

October 10, 2006

EPA Standard Ocean Disposal Conditions for the San Francisco Deep Ocean Disposal Site

For enhanced clarity and understanding, the following updated Special Conditions combine and re-number many of the previously-published special conditions for SF-DODS. Note that the substantive provisions of EPA’s 1999 rule (64 FR 141, pages 39927-39934), and EPA’s most recent SMMP Implementation Manual for SF-DODS must be incorporated by reference as part of the project authorization/contract, except as the following specific provisions update them. Also note that the term “permit” as used here applies both to USACE ocean dumping permits issued under Section 103 of the MPRSA, and to contracts or other authorizations for USACE dredging projects.

Generic Ocean Disposal Special Conditions for use of the San Francisco Deep Ocean Disposal Site (SF-DODS)

(Update, includes modifications to Conditions 6, 7, 11, and 12)

1. Dredged material shall not be leaked or spilled from disposal vessels during transit to the SF-DODS. Transportation of dredged material to the SF-DODS shall only be allowed when weather and sea state conditions will not interfere with safe transportation and will not create risk of spillage, leak or other loss of dredged material in transit to the SF-DODS. No disposal vessel trips shall be initiated when the National Weather Service has issued a gale warning for local waters during the time period necessary to complete dumping operations, or when wave heights are 16 feet or greater. The permittee must consult the most current version of the SMMP Implementation Manual for additional restrictions and/or clarifications regarding other sea state parameters, including but not limited to wave period.
2. Vessels used for dredged material transportation and disposal must not be loaded beyond a level at which dredged material would be expected to be spilled in transit under anticipated sea state conditions, and in no case may disposal vessels be filled to more than 80 percent of the vessel’s maximum bin or hopper volume. Before any disposal vessel departs for the SF-DODS, an independent quality control inspector (“*Independent*” means not a direct employee of the permittee or dredging contractor) must certify in writing that the vessel is not over-loaded, and otherwise meets the conditions and requirements of a Scow Certification Checklist that contains all of the substantive elements found in the example contained in the most current SMMP Implementation Manual. EPA and USACE must approve the permittees’ proposed Scow Certification Checklist prior to the commencement of ocean disposal operations. No ocean disposal trip may be initiated until both the vessel captain and the independent inspector have signed all relevant entries on the Scow Certification Checklist.

3. Disposal vessels in transit to and from the SF-DODS must remain at least three nautical miles from the Farallon Islands whenever possible. Closer approaches should occur only where the designated vessel traffic lane enters the 3-mile limit. In no case should disposal vessels leave the designated vessel traffic lane within the 3-mile limit, or transit north of a line extending westward from the termination of the designated vessel traffic lane while within the 3-mile limit.
4. Surface Disposal Zone: When dredged material is discharged within the SF-DODS, no portion of the vessel from which the materials are to be released (e.g. hopper dredge or towed barge) may be further than 1,960 feet (600 meters) from the center of the disposal site at latitude 37°39'N; longitude 123°29'W.
5. No more than one disposal vessel may be present within the SF-DODS Surface Disposal Zone at any time.
6. The primary tracking system for recording ocean disposal operations shall be disposal vessel- (e.g., scow-) based. Disposal vessels shall use an appropriate Global Positioning System (satellite) tracking system capable of indicating and recording the position of the disposal vessel with a minimum accuracy of 10 feet during all transportation and disposal operations. **Draft and bin sensors must be positioned near both the forward and aft ends of the disposal vessel, and calibrated to accurately record vessel draft and load level within the bin, respectively.** The primary disposal tracking system must indicate and record the **position, draft, and load level within the bin** of the disposal vessel throughout transit to the disposal site, during dumping and for at least one-half hour after disposal is complete, as well as indicate and record the time and location of the beginning and end of each disposal event. This primary disposal tracking system must indicate and automatically record the **position, draft and load level within the bin** of the disposal vessel at a maximum 5-minute interval while outside the SF-DODS disposal site boundary, and at a maximum 15-second interval while inside the SF-DODS disposal site boundary.
7. Data recorded from the primary disposal tracking system must be posted by a third party contractor on a near-real time basis to a World Wide Web (Internet) site accessible by EPA Region 9, the San Francisco District USACE, and NOAA's Gulf of the Farallones National Marine Sanctuary. The Web site must be searchable by disposal trip number and date, and at a minimum for each disposal trip it must provide a visual display of: the disposal vessel transit route to SF-DODS; the beginning and ending locations of the disposal event; and the disposal vessel draft **and load level in the bin** throughout the transit. The requirement for posting this information on the Web is independent from the hard-copy reporting requirements listed in Special Condition 9, below. **The third-party system must also generate and distribute "e-mail alerts" regarding any degree of apparent dumping outside the Surface Disposal Zone of SF-DODS, and regarding any apparent substantial leakage/spillage or other loss of material en route to SF-DODS. Substantial leakage/spillage or other loss shall be defined as an apparent loss of draft of one foot or more between the time that the disposal vessel begins the trip to SF-DODS and the time of actual disposal. E-mail alerts for any disposal trip must be sent within 24 hours of the end of that trip to EPA Region 9, the San Francisco District USACE, the relevant National Marine Sanctuary if the event triggering the**

alert occurred within a Sanctuary boundary, and to other addressees as may be indicated by EPA or USACE on a project-specific basis.

8. A functioning back-up navigation system, meeting the minimum accuracy requirement listed above, must also be in place on the towing vessel (tug, if any). If the primary (disposal vessel's) navigation tracking system fails during transit, the disposal trip may continue only so long as the back-up (towing vessel's) navigation and tracking system remains operational, by placing the towing vessel in such a location that, given the compass heading and tow cable length to the scow ("lay back"), the estimated scow position would be within the surface disposal zone [i.e., within 1,960 feet (600 meters) of the center of the disposal site]. In such cases the towing vessel's position, and the tow cable length and compass heading to the disposal vessel, must be recorded and reported. Further disposal operations using a disposal vessel whose navigation tracking system fails must cease until those primary capabilities are restored.
9. In addition to the requirement in Special Condition 7, above, for posting data on the Web, the permittee shall maintain daily records (using the approved Scow Certification Checklist) of: the amount of material dredged and loaded into barges for disposal; the location from which the material in each barge was dredged; the weather report for and sea-state conditions anticipated during the transit period; the time that each disposal vessel departs for, arrives at and returns from the SF-DODS; the exact location and time of each disposal; and the volume of material disposed at the SF-DODS during each disposal trip. The permittee shall also maintain, for each ocean disposal trip, both electronic data and printouts from the GPS-based primary disposal tracking system (or the backup navigation tracking system when appropriate) showing transit routes, disposal vessel draft readings, disposal coordinates, and the time and position of the disposal vessel when dumping was commenced and completed. These daily records shall be compiled at a minimum for each month during which ocean disposal operations occur, and provided in reports, certified accurate by the independent quality control inspector, to both EPA and USACE. For each ocean disposal trip, these reports shall include the electronic tracking and disposal vessel draft data on CD-ROM (or other media approved by EPA and USACE), as well as hard copy reproductions of the Scow Certification Checklists and printouts listed above. The reports shall include a cover letter describing any problems complying with the Ocean Disposal Special Conditions, the cause(s) of the problems, any steps taken to rectify the problems, and whether the problems occurred on subsequent disposal trips.
10. An independent quality control inspector ("*Independent*" means not a direct employee of the permittee or dredging contractor) shall observe all dredging operations, and inspect each disposal vessel prior to its departure for SF-DODS. The inspector shall certify (along with the disposal vessel captain) whether the specifications on the approved Scow Certification Checklist have been met. The inspector shall promptly inform the permittee whether there are any inaccuracies or discrepancies concerning this information, and shall provide a summary for the calendar month in a report to EPA and USACE by the 15th day of the following month.
11. The permittee shall report any anticipated, potential, or actual variances from compliance

with the above Ocean Disposal Special Conditions, and any additional project-specific Special Conditions, to the District Engineer and the Regional Administrator within 24 hours of discovering such a situation. If any of these compliance problems occur within the boundaries of a National Marine Sanctuary, the permittee must also report any such situation to the relevant Sanctuary office within 24 hours. **An operational “e-mail alert” system, as described in Special Condition 7 above, will be considered as fulfilling this 24-hour notification requirement.** In addition, the permittee shall prepare and submit a report of any such compliance problems, certified accurate by the independent quality control inspector, on a weekly basis by noon Monday, to the District Engineer and the Regional Administrator.

12. Within 60 days following the completion of ocean disposal operations, the permittee shall submit to the District Engineer and Regional Administrator a completion letter summarizing the total number of disposal trips and the overall **(bin and in-situ)** volume of material disposed at SF-DODS for the project, and whether any of this dredged material was excavated from outside the areas authorized for ocean disposal or was dredged deeper than authorized by the permit.

Appendix D – Acronyms

ACHP.....	Advisory Council on Historic Preservation
APE.....	Area of Potential Effects
ASBS.....	Area of Special Biological Significance
CAA.....	Clean Air Act
CCC.....	California Coastal Commission
CCMP	California Coastal Management Program
CEQ.....	Council on Environmental Quality
CWA.....	Clean Water Act
CY.....	Cubic yards
CZMA.....	Coastal Zone Management Act
EA	Environmental Assessment
EFH.....	Essential Fish Habitat
EIS.....	Environmental Impact Statement
EPA.....	Environmental Protection Agency
ESA.....	Endangered Species Act
FMP.....	Fishery Management Plan
FONSI.....	Finding of No Significant Impact
FWCA.....	Fish and Wildlife Coordination Act
FWS	U.S. Fish and Wildlife Service
FY	Fiscal year
HHW.....	Higher High Water
HLW	Higher Low Water
LCP	Local Coastal Program
LHW	Lower High Water
LLW.....	Lower Low Water
MLLW	Mean Lower Low Water
MMPA	Marine Mammal Protection Act
NAAQS.....	National Ambient Air Quality Standards
NEPA.....	National Environmental Policy Act
NHPA.....	National Historic Preservation Act
NMFS.....	National Marine Fisheries Service
NOAA.....	National Oceanographic and Atmospheric Administration
O&M.....	Operations and Maintenance
PL.....	Public law
SHPO	State Historic Preservation Officer
SPN.....	San Francisco District
USACE	U.S. Army Corps of Engineers
WDR	Waste Discharge Requirement

Appendix E – References

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