3.3

BIOLOGICAL RESOURCES

3.3.1 Introduction

This section identifies the existing conditions of biological resources within the proposed Project area and addresses potential impacts on these resources that could result from the proposed Project. Creating 10 acres (4 ha) of new landfill would result in a significant but mitigable loss of marine habitat and Essential Fish Habitat (EFH) in the West Basin. Increased vessel traffic would also increase the potential for introduction of invasive species that could have significant and unmitigable impacts on biological communities. All other impacts of the proposed Project on biological resources would be less than significant.

3.3.2 Environmental Setting

Biological resources in the Los Angeles-Long Beach Harbor have been described in several environmental documents, including the Deep Draft Navigation Improvement EIS/EIR (USACE and LAHD 1992), West Basin Entrance Widening Project EIR (LAHD 1991b), Pier 400 (LAHD 1999), Channel Deepening Project (USACE and LAHD 2000), and biological surveys (MEC 1988, MEC and Associates 2002). The following description of biological resources incorporates information from these previous environmental documents, including information from the recent 2000 surveys. The *Year 2000 Biological Baseline Study of San Pedro Bay* (MEC and Associates 2002) is incorporated by reference. The Executive Summary of that study is included in Appendix M, while the entire study is available for review at the Port of Los Angeles headquarters. Relevant parts of this document are summarized where used throughout Section 3.3 and incorporated by reference. Biological resource sampling throughout the Harbor is not undertaken on an annual basis, and the most recent comprehensive surveys were completed in 2000.

Over the years, the Ports have worked with the State and Federal resource agencies to conduct periodic evaluations of Harbor conditions, which then serve to define baseline conditions for habitat assessments associated with Port development projects. Based on these assessments, the resource agencies and the Ports establish appropriate harbor habitat and habitat mitigation values. The last major assessment, which was conducted

in 2000, resulted in modification of the mitigation values in the harbor (LAHD 2004a). These modifications were indicative of a gradual increase in habitat value in the harbor and resulted in an increase in mitigation requirements in the Main Channel from lower value Inner Harbor habitat to higher value Outer Harbor habitat. While still valuable, the remainder of the Inner Harbor, including the West Basin area, was identified as having lower habitat values relative to the deep and shallow waters of the Outer Harbor (see MEC and Associates 2002, LAHD 2004a). In general, marine resource fluctuations along the California Coast and in the Harbor can occur seasonally and annually based on general fluctuations in the environment including, but not limited to, amount of rainfall and El Nino events. However, in general, substantial improvements in habitat quality associated with improved water quality in the Harbor occurred in the period between the 1970s and mid 1980s. Further improvements in marine resources have occurred since that time, though at a slower pace than in the previous 10-year period (MEC and Associates 2002). The types of habitats (shallow and deep pelagic, benthic, riprap, and piling in the Inner Harbor and Outer Harbor) and the species associated with them, have remained fairly predictable as described for each habitat below. Perhaps the most significant change has been the expansion of eelgrass habitat in the shallow soft bottom habitat of the Outer Harbor (MEC and Associates 2002). However, this habitat does not occur in the Inner Harbor.

For these reasons, 2000 and earlier data (to about the mid 1980s) accurately reflect 2003 environmental conditions in the Harbor because those conditions have remained about the same or even improved from 2000 to 2003. The 2002 MEC reports was the first survey that included an identification of what species constitute non-native taxa that have been introduced over-time to the Ports.

Beneficial uses in the Inner Harbor include marine habitat as defined in the Basin Plan (RWQCB 1994). Biological resources baseline studies (MEC 1988, MEC and Associates 2002) have shown no depreciation in the quantity or quality of marine resources even though the Harbor has experienced increased commercial development that includes new facilities and increased vessel traffic.

3.3.2.1 Terrestrial Habitats

Upland areas where backland improvements would occur, including the railyard relocation and Harry Bridges Boulevard widening and buffer area, are previously developed or vacant lands that provide limited terrestrial habitat for wildlife and plants. Vegetation on uplands in the proposed Project area is primarily landscape plantings and weedy species in undeveloped areas. Cover is sparse where such plants occur, and most unpaved areas have no vegetation. No natural or sensitive plant communities are present. Wildlife use of the proposed Project area is limited primarily to feral cats, rats and mice, and birds associated with urban areas that include gulls (*Larus* spp.), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), European

starling (*Sturnus vulgaris*), Brewer's blackbird (*Euphagus cyanocephalus*), and northern mockingbird (*Mimus polyglottos*).[1]

3.3.2.2 Benthic Environments

3.3.2.2.1 Soft Bottom Habitats

Organisms that live on and in the bottom sediments act to modify the character of the bottom. Those that live in the sediments, primarily invertebrate species, are referred to as infauna, while those living on the sediment surface are referred to as epifauna. These species are important as a food source for fish, crabs, and other benthic organisms. Since the 1950s, improvements in water quality have aided the establishment of diverse assemblages of benthic animals in previously disturbed Inner Harbor and channel areas (USACE and LAHD 1980, 1984). Data from the 1970s show that the polychaete *Tharyx parvus* accounted for most of the benthic organisms in soft bottom samples (HEP 1976; USACE and LAHD 1980). An assessment of dominant species in the Harbor indicates a gradient of increasing environmental stress (enrichment/contamination) from the Outer to Inner Harbor and from basins to slips (MEC 2002). Over time there has been an increasing tendency of movement of healthy Outer Harbor assemblages up the main channel and improved benthic indicators in the Inner Harbor areas (MEC 2002). Between 1990 and 2003, more than 350 infaunal invertebrate species have been collected during routine monitoring in the West Basin area, although only 20 species have contributed 1 percent or more to the total abundance in the area (MBC 2003). The soft bottom benthos of the West Basin is generally dominated by polychaete annelids (worms), with crustaceans and mollusks moderately abundant and other taxa less abundant. Polychaetes were still numerically dominant in the Berth 137 area and remain the most speciose (having the greatest number of species) taxonomic group throughout the West Basin (MBC 2003). However, in 2003 the Asian clam (*Theora lubrica*), a mollusk, was the dominant species near Berth 145 and was the most abundant single species throughout the West Basin area (MBC 2003). The abundance of non-native species such as the Asian clam has increased throughout the Los Angeles and Long Beach Harbor complex since the 1970s, and at least six of 25 infaunal species known to have been introduced into the Harbor are found in the West Basin (MEC and Associates 2002).

In 2000, the biomass of invertebrates in sediments of the West Basin averaged 21 grams/square meter (g/m^2) near Berth 137 (MEC and Associates 2002). Densities of 5,856 individuals/m^2 were found in the same area in 2003 (MBC 2003). The species composition suggests low to moderate organic enrichment in the West Basin (MEC and Associates 2002). Annual and seasonal variations in density of infaunal organisms are to be expected as a result of variations in oceanographic (chemical and physical) conditions over time and human activities (USACE and LAHD 1992).

Epifaunal invertebrates associated with, but not living in, soft-bottom sediments are generally larger than infaunal organisms and are also referred to as macroinvertebrates. These species are most commonly caught during trawl sampling. More than 45

[1] Based on personal observations and professional expertise of preparer.

macroinvertebrate species have been taken during regular trawl monitoring in the West Basin since 1978 (MBC 2002). Abundance, however, has varied considerably among yearly and seasonal samples, ranging from a high of 28 individuals collected by trawl in August 2000 to a low of 8 individuals collected in November 2000 (MEC and Associates 2002). The annual mean was 20 individuals per trawl. At the Outer Los Angeles Harbor station, the annual mean was 16 individuals per trawl and ranged from 7 to 28 individuals per trawl. Surveys in the Outer Harbor in 1986-1987 (MEC 1988) collected a mean of 10 individuals per trawl (adjusted for smaller trawl size) in three Outer Harbor locations. The number of individuals per trawl, however, varied considerably among the nine sampling dates (0 to 71 individuals per trawl). Surveys in the Outer Harbor in 1996-1999 by the City of Los Angeles indicate that the abundance of invertebrates collected by trawl decreased considerably during the 1997-1998 El Nino and recovered after that (MEC and Associates 2002). These data indicate that epifaunal invertebrate abundance varies within a year but has not decreased from 1987 to 2000. Twelve macroinvertebrate species were found living on the bottom of the West Basin in trawl surveys conducted in 2000 (MEC and Associates 2002). In the West Basin, the epifaunal macroinvertebrate assemblage is dominated by arthropod species, particularly black spotted shrimp (*Crangon nigromaculata)* and tuberculate pear crab (*Pyromaia tuberculata),* the two most abundant species taken during monitoring sampling (MBC 2002). Nudibranchs and other gastropod mollusks, sea stars, and sea cucumbers are also occasionally taken in the area (MBC 2002). Other commonly collected epifaunal invertebrates include Xantus' swimming crab (*Portunus xantusii*), New Zealand bubble snail (*Philine auriformis*), and the spotwrist hermit crab (*Pagurus spilocarpus*) (MEC and Associates 2002). Fish associated with soft bottoms are discussed below under Water Column Habitats.

3.3.2.2.2 Hard Substrates

Organisms on hard substrates in the Harbor show vertical zonation similar to that on rocky shores. Species present include barnacles, mussels, polychaete worms, limpets, anemones, and algae (MEC 1988, LAHD 1991b). The Inner Harbor was dominated by sparse coverage of stress-tolerant algal species such as *Ulva* spp. and *Enteromorpha* spp. (USACE and LAHD 1984). Rock riprap at Berths 121-126 supported 23 species of crustaceans, polychaete worms, mollusks, and algae with a biomass of 41 g/m^2 (LAHD 1981). The intertidal zone was dominated by barnacles (*Balanus amphitrite*) with a few bay mussels (*Mytilus edulis*) and slipper limpets (*Crepidula onyx*). Organisms in the subtidal zone included sea anemones, slipper limpets, gorgonian coral (*Muricea* sp.), polychaete worms, and a solitary tunicate (*Ciona intestinalis*). Wood and concrete pilings surveyed in 1981 contained 30 species with a biomass of 121 g/m^2 on the concrete piles and 277 g/m^2 on the wood piles (LAHD 1981). Surveys of concrete and rock at Berth 136, under a wharf, in 2000 found the non-native Pacific oyster (*Crassostrea gigas*) to be the only species in the upper intertidal zone and the dominant species in the lower intertidal zone, where coralline algae were also present (MEC and Associates 2002). The Pacific oyster is new to the Harbor since the 1986-87 surveys. It is from Asia and was introduced into northern California for commercial purposes, but the source in Los Angeles Harbor is unknown. The subtidal zone also supported Pacific oyster as well as sponges, a stalked tunicate (*Styela* sp.), and crustaceans. A total of 43 invertebrate species were found including five non-native species. The mean biomass of organisms was 2,413 g/m^2 in the upper intertidal, 3,832 g/m^2 in the lower intertidal, and 2,497 g/m^2 in the upper subtidal. The 2000 surveys also noted that the bay mussel had been misidentified in previous surveys and is

actually the non-native Mediterranean mussel (*M. galloprovincialis*). No macroalgae was found at Berth 136, but the non-native sargassum (*Sargassum muticum*) was present at the entrance to the West Basin. Fish associated with hard substrates are discussed below under Water Column Habitats.

3.3.2.3 Water Column Habitats

Organisms in the water column include plankton (small floating animals and plants) and fish. Phytoplankton (plant) communities tend to be less diverse in the Inner Harbor than in the Outer Harbor, but productivity can be higher in the Inner Harbor due to warmer water temperatures, nutrient inputs, and reduced circulation (Allan Hancock Foundation 1980). Inner Harbor zooplankton (animal) communities are dominated by copepods that have seasonal peaks and declines. Ichthyoplankton (fish eggs and larvae) species and abundances vary on a spatial and temporal basis in the Harbor. Larvae of northern anchovy (*Engraulis mordax*), white croaker (*Genyonemus lineatus*), blenny (*Hypsoblennius* spp.), arrow goby (*Clevelandia ios*), and other members of the family Gobiidae (gobies) have all been found to be abundant. Recent surveys in the West Basin (MEC and Associates 2002) found the most abundant larvae to be unidentified gobies, bay goby (*Lepidogobius lepidus*), northern anchovy, queenfish (*Seriphus politus*), blenny, white croaker, and yellowfin goby (*Acanthogobius flavimanus*). The latter is a non-native species. Fish eggs were found from unidentified fish, croaker, and speckled sanddab (*Citharichthys stigmaeus*). The species composition and abundance of ichthyoplankton in the Harbor has been shown to be similar to that of the juvenile and adult fish community (Brewer 1983), suggesting that the Harbor is a nursery for nearly all of the fish species found there as adults (MEC 1988, MBC 1984).

The Los Angeles-Long Beach Harbor complex is a habitat for over 130 species of juvenile and adult fish, some of them transient visitors and some permanent residents (Horn and Allen 1981, MEC 1988, USACE and LAHD 1980). Several species, however, dominate fish populations in the Harbor: white croaker, northern anchovy, queenfish, Pacific sardine (*Sardinops sagax*), and topsmelt (*Atherinops affinis*) (Brewer 1983, MEC 2002). Four other species are also relatively abundant and are considered important residents of the Harbor: white seaperch (*Phanerodon furcatus*), California tonguefish (*Symphurus atricauda*), speckled sanddab, and shiner perch (*Cymatogaster aggregata*) (Horn and Allen 1981). Juvenile and adult individuals of most species are more abundant during the spring and summer than in winter (Horn and Allen 1981). The Harbor does include commercially important species including the California halibut (*Paralichthys californicus*), the barred sand bass (*Paralabrax nebulifer*), and California barracuda (*Synodus argentea*).

Species richness and diversity in the Harbor complex tend to decrease along a gradient from the Outer Harbor to the Inner Harbor (USACE and LAHD 1984). The fish community in the Inner Harbor is dominated by a few species that comprise a very high percentage of the total catch. While 36 species have been collected during regular monitoring in the West Basin since 1978, two species, white croaker and northern anchovy, account for 92 percent of all individuals collected during the surveys (MBC 2002). Other common species include queenfish, bay goby, white seaperch, and shiner perch. Fish surveys in 2000 (MEC and Associates 2002) using Lampara nets and otter trawls found 28 species in the West Basin. The dominant species (in numbers of individuals) were northern anchovy, topsmelt (*Atherinops*

affinis), white croaker, queenfish, and specklefin midshipman (*Porichthys myriaster*). The mean catch per haul was 234 fish (3.1 kg) for the lampara net and 179 fish (1.3 kg) for the otter trawl. The number of fish collected varied by season with the lowest in winter and the highest in summer.

3.3.2.4 Water Birds

Numerous water-associated birds use the Harbor as residents and as seasonal visitors. Recent surveys (MEC and Associates 2002) found 69 species in the Harbor that depend on marine habitats and another 30 species that do not. Gulls, upland birds, and waterfowl were the dominant groups in the West Basin, excluding the Southwest Slip. All other types of birds (large shorebirds, wading/marsh birds, and raptors) were also represented. The most abundant species were California gull (*Larus californicus*), western gull (*L. occidendalis*), Heermann's gull (*L. heermanni*), ring-billed gull (*L. delawarensis*), rock dove, double-crested cormorant (*Phalacorcorax auritus*), and western grebe (*Aechmophorus clarkii*).

3.3.2.5 Special-Status Species

Several state and federally listed threatened or endangered species are known to be present, at least seasonally, in the Harbor. Several of these have also been observed in the West Basin area (see Table 3.3-1).

Table 3.3-1. Sensitive Bird Species in the Proposed Project Area

Species	*Status*		*Notes*
	Federal	*State*	
California least tern	E	E	Breeds on Pier 400 from about April through August; forages preferentially over shallow waters; 3 in the Southwest Slip in June 2000.
California brown pelican	E	E	Present all year; roosts on the breakwaters and forages over Harbor waters; nests on the Channel Islands and in Baja California, Mexico. In the West Basin primarily July-September 2000.
Peregrine falcon	—	E	Nests on Vincent Thomas bridge within 1 mi (0.6 km) of the Harbor & forages in Harbor area. One observed in the West Basin in November 2000.
Western snowy plover	T	SC	Infrequent visitor to Harbor; observed on Pier 400.
Belding's savannah sparrow	—	E	Inhabits pickleweed marsh; transient visitor to Harbor.
Elegant tern	—	SC	Nested on Pier 400 in 1998-2003; present all year; forages over water near nests.
Black skimmer	—	SC	Nested on Pier 400 in 1998-2000 and in 2004; forages over water near nests; present all year.
Double-crested cormorant	—	SC	Rests on open waters and breakwaters.
Common loon	—	SC	Infrequent winter visitor to Harbor; observed in the West Basin in 2000.
California gull	—	SC	Winter resident in Harbor area; observed in the West Basin in 2000.
Long-billed curlew	—	SC	Infrequent transient in Harbor area; observed in the West Basin in 2000.
Note: E = endangered; T = threatened; SC = Special Concern (nesting populations for birds in this table).			

Two endangered bird species regularly use the Los Angeles-Long Beach Harbors: the California least tern and the California brown pelican. Both have been observed in the West Basin area. The least tern is only present in the Harbor area during its April to September breeding season, while the brown pelican is present throughout the year. Each of these species is discussed in more detail below. The threatened western snowy plover is a transient migratory visitor, and a few individuals have been observed on Pier 400 in recent years (Keane Biological Consulting 2005a, 2005b). Several bird species that are state-listed or state species of special concern are also known to use the Harbor (see Table 3.3-1).

Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) inhabits pickleweed marshes exclusively (USACE and LAHD 1992). No suitable habitat for this species is present in the proposed Project area. Peregrine falcons (*Falco peregrinus anatum*), removed from the federal endangered species list (but still state-listed as endangered), are known to nest in the Harbor area (Vincent Thomas and Schuyler F. Heim Bridges) (Keane Biological Consulting 1999a, 2003) and thus may periodically forage in the Harbor area. In 2000, a pair of peregrines attempted to nest in container cranes in the West Basin area of the Inner Harbor. The California gull, common loon (*Gavia immer*), double-crested cormorant, and elegant tern (*Sterna elegans*) are all marine species that are known to use the Harbor for at least part of the year. The elegant tern began nesting on Pier 400 in 1998 and 1999, and 10,170 nests were observed in 2004 (Keane Biological Consulting 2005a). The black skimmer (*Rynchops niger)* also has nested on Pier 400. The California gull, common loon, and double-crested cormorant do not nest in the Harbor.

No sea turtles have been observed within the Ports of Los Angeles or Long Beach during more than 20 years of biological surveys (MEC 1988, MEC and Associates 2002, K. Keane, Keane Biological Consulting, pers. comm. 2007). However, several species have regional distributions in southern California. Therefore, it is possible that sea turtles may be occasional visitors to the outer harbor areas in the Ports. A brief summary of sea turtles that could potentially be observed in the study area is presented below.

Several turtle species are found in the eastern Pacific Ocean, including loggerhead, green, leatherback, and olive ridley sea turtles. Loggerhead sea turtles (*Caretta caretta*), federally listed as threatened, are found in all temperate and tropical waters throughout the world and are the most abundant species of sea turtle found in U.S. coastal waters (NMFS 2007).

Green sea turtles (*Chelonia mydas*), federally-listed as threatened, are found in all temperate and tropical waters throughout the world. They primarily remain near the coastline and around islands and live in bays and protected shores, especially in areas with seagrass beds. In the eastern North Pacific, green turtles have been sighted from Baja California to southern Alaska, but most commonly occur from San Diego south (NMFS 2007). They are rarely observed in the open ocean.

Leatherback sea turtles (*Dermochelys coriacea*), federally-listed as endangered, are the most widely distributed of all sea turtles and are found worldwide with the largest north and south range of all the sea turtle species. The Pacific Ocean leatherback population is generally smaller in size than that in the Atlantic Ocean (NMFS 2007).

Olive ridley sea turtles (*Lepidochelys olivacea*), federally listed as threatened, are found in tropical regions of the Pacific, Indian and Atlantic Oceans. They typically forage off shore in surface waters or dive to depths of 500 feet (150 m) to feed on bottom dwelling crustaceans.

All marine mammals are protected under the Marine Mammal Protection Act (MMPA) of 1972, and some are also protected by the Endangered Species Act (ESA) of 1973. These species may forage during brief visits, but do not breed in Los Angeles Harbor. The only marine mammal known to occasionally use the West Basin is the California sea lion (*Zalophus californianus*), and only one was observed during the 2000 surveys (MEC and Associates 2002). This species was also frequently observed in the Main Channel. Harbor seals (*Phoca vitulina*) may enter the Inner Harbor, but none were observed there in the 2000 surveys (MEC and Associates 2002). Both species use the Outer Harbor. Outside the breakwater, a variety of marine mammals use nearshore waters. These include the gray whale (*Eshrichtius robustus*) that migrates from the Bering Sea to Mexico and back each year. This and other species of baleen whales generally are found as single individuals or in pods of a few individuals. Toothed whales, and particularly dolphins, can be found in larger groups up to a thousand or more (Leatherwood and Reeves 1983). Several species of dolphin and porpoise are commonly found in coastal areas near Los Angeles including the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), Risso's dolphin (*Grampus grisseus*), Dall's porpoise (*Phocoenoides dalli*), bottlenose dolphin (*Tursiops truncates*), northern right whale dolphin (*Lissodelphis borealis*), and common dolphin (*Delphinus delphis*), with the common dolphin the most abundant (Forney et al. 1995).

3.3.2.5.1 California Least Tern

The California least tern was federally listed as endangered in 1970 and state listed as endangered in 1971. Loss of nesting and nearby foraging habitat due to human activities caused a decline in the number of breeding pairs (USFWS 1992). The biology of this species has been described in the biological assessment for the Channel Improvement and Landfill Development Feasibility Study (USACE 1990), biological opinion for the Los Angeles Harbor Development Project (1-6-92-F-25), and Deep Draft Navigation Improvement EIS/EIR (USACE and LAHD 1992). The following is a summary of information on least tern use of the Los Angeles Harbor.

The least tern has been nesting during the summer on Terminal Island (including Pier 300) since at least 1974 (Keane Biological Consulting 1999a). In 1979, the Los Angeles Harbor Department began providing nesting habitat for the species and entered into a Memorandum of Agreement (MOA) with the U.S. Fish and Wildlife Service (USFWS), USACE, and California Department of Fish and Game (CDFG) for management of a 15-acre (6.1-ha) least tern nesting site in 1984. This MOA sets forth the responsibilities of the signing parties for management of the designated least tern nesting site within the Harbor, and it is renewed every three to five years. A new MOA was approved by the Board of Harbor Commissioners in June 2006. The MOA also allows the designated nesting site to be relocated under specific conditions, and the location of this nesting site has changed over time due to port development activities and is now on the southern tip of Pier 400 (Keane Biological Consulting 2003). In 1997, the only successful nesting occurred on the newly constructed Pier 400, and in 1998 the Pier 300 nesting site was decommissioned (Keane Biological Consulting

1999a). Least tern nesting in the Harbor has been monitored annually since 1973. The number of nests in the Harbor varied from 0 to 134 between 1973 and 1994 and then steadily increased from 16 in 1995 to 565 in 2000, with decreases in 2001 and 2002 and an increase to 1,071 in 2004 and 1,322 in 2005 (Keane Biological Consulting 2005b). In 2006 there were 907 nests on Pier 400. No nesting has been reported on uplands within the West Basin Project area.

A comparison of the Los Angeles Harbor 1998 nesting success with that from other areas in Los Angeles and Orange counties shows that the Harbor produced 19 percent of the total number of fledglings and had the highest number of fledglings per pair (Keane Biological Consulting 1999a). In 2003, the Harbor produced 55 percent of the total number of fledglings in Los Angeles and Orange counties and 25 percent of the statewide fledglings (Keane Biological Consulting 2003). In 2005, these numbers increased to 71.4 percent of the total fledglings in Los Angeles and Orange counties and 45 percent of the statewide number of fledglings (Keane Biological Consulting 2005b).

Several foraging studies have been conducted in the Harbor. The 1982, 1984, and 1985 surveys found that least tern foraged over shallow water (generally less than 20 feet [6 m] deep) in the Outer Harbor, especially near the nesting site, but not in the Inner Harbor (Keane Biological Consulting 1997). Surveys using radio-telemetry and observations in 1986 and 1987 showed that the least terns foraged inside and outside the Harbor during egg incubation. More foraging occurred near the breakwater than adjacent to Terminal Island during incubation but this reversed after the eggs hatched (Keane Biological Consulting 1997). In the 1994-1996 surveys, least terns foraged around the east and south sides of Pier 300 with greater use of the Seaplane Anchorage in 1996 than in the other 2 years. After the south side of Pier 300 was dredged to deep water, use by the terns declined. The Cabrillo Beach and Cabrillo Saltmarsh areas were used to varying degrees (Keane Biological Consulting 1997). A study in 1997 and 1998 found that the least terns used the West Basin of Long Beach Harbor as well as the Pier 300 Shallow Water Habitat, Seaplane Anchorage, and the Gap (the area between Naval Mole and Pier 400 Transportation Corridor). The foraging frequency (dives per acre) varied among locations and between years. This variation may be related to changes in availability of prey and distance from nest sites (Keane Biological Consulting 1998). These studies have shown that Outer Harbor shallow water areas (less than 20 feet [6 m] deep) provide important foraging areas for the least tern. Three least terns were observed in the Southwest Slip in June 2000 (MEC and Associates 2002) in an area that was subsequently filled. The only shallow water in the West Basin is what remains of the Southwest Slip. Regular foraging in this area, however, has not been observed. The Southwest Slip is about 3 miles (4.8 km) from the current nesting location on Pier 400 and over 1 mile (0.6 km) from the areas commonly used for foraging. In summary, the foraging studies show that the least terns forage primarily in the Outer Harbor and not in the channels, basins, and slips of the Inner Harbor. No foraging by this species has been reported in the West Basin outside of the Southwest Slip.

Foraging by least terns at the Pier 300 Shallow Water Habitat has increased even more than the number of nests in recent years. This suggests that least tern prey has become more abundant over the period of 1994 to 1998. Thus, the increase in nesting may be related to increases in both the amount of suitable nesting habitat and prey. Foraging by least terns in 1998 also occurred in the shallow waters of the (incomplete) Pier 400 Phase 2 fill area adjacent to the north of the Phase 1 area

(Keane Biological Consulting 1999a). In 1999, least tern foraging was again very high in the Pier 300 Shallow Water Habitat with much of the activity in the waters immediately adjacent to Pier 300 (Keane Biological Consulting 1999b). Foraging was also very high there in 2001 and 2003, but in 2002 the highest foraging was on the north side of Pier 400 adjacent to the causeway (west side) and near Cabrillo Beach (Keane Biological Consulting and Aspen Environmental Group 2004). Foraging showed three peaks in 2003: early to mid May (egg-formation period), mid June (chick hatching period), and early to mid July (fledging period). In 2003, foraging outside the Harbor increased relative to that of the previous two years.

The biological opinion (USFWS 1992) for the Los Angeles Harbor Development Project found that dredging and filling activities in or adjacent to least tern habitat in the Outer Harbor could adversely affect the terns through loss (from dredging or filling) or degradation (from turbidity or altered water circulation) of shallow water foraging areas and through disturbances near nesting areas. Protection of the terns was achieved through not allowing turbidity and pile driving in Outer Harbor shallow waters during the nesting season, a one-to-one replacement of any shallow water lost within the Outer Harbor, and protection of the nesting site as provided through the interagency least tern nesting site MOU (LAHD et al. 2006).

3.3.2.5.2 California Brown Pelican

The California brown pelican was federally listed as endangered in 1970 and was state listed as endangered in 1971. Low reproductive success attributed to pesticide contamination that caused thinning of eggshells was the primary reason for their listing. After use of DDT was prohibited in 1970, the population began to recover (USACE and LAHD 1992). The California brown pelicans' abundance has climbed since surveys conducted in 1973 found them to comprise only 3.8 percent of the total bird observations in the ports (HEP 1980). The only breeding locations in the U.S. are at West Anacapa Island and Santa Barbara Island, although a few have begun nesting at the south end of the Salton Sea (CDFG 2005, Patten et al. 2003). Breeding also occurs at offshore islands and along the mainland of Mexico.

This species has been described in the biological opinion (1-6-92-F-25) for the Los Angeles Harbor Development Project (USFWS 1992), biological assessment for the Channel Improvement and Landfill Development Feasibility Study (USACE 1990), and Navigation Improvement EIS/EIR (USACE and LAHD 1992).

Brown pelicans use the Harbor year-round, but their abundance is greatest in the summer when post-breeding birds from Mexico arrive. The highest numbers are present between early July and early November, when several thousand can be present (MBC 1984). Pelicans use all parts of the Harbor, but they prefer to roost and rest on the Harbor breakwater dikes, particularly the Middle Breakwater (MBC 1984, MEC 1988, and MEC and Associates 2002). They forage over open waters for fish such as the northern anchovy, and accounted for 9.5 percent of the total number of birds observed in the Harbor during the 2000-2001 surveys. Several were observed in the West Basin in July through September 2000 with few to none the remainder of the year (MEC and Associates 2002). The brown pelican does not breed in the Harbor area.

The biological opinion for the Los Angeles Harbor Development Project (USFWS 1992) determined that dredging and filling activities in the Outer Harbor would not adversely affect roosting on the outer breakwater or foraging in the Harbor by the pelicans.

3.3.2.6 Wildlife Movement Corridors

The Conservation Element of the City of Los Angeles General Plan addresses wildlife corridors. These are for movement of animals between large habitat areas. The Harbor does not provide any such corridors. However, some marine fish species move into and out of the Harbor for spawning or nursery areas.

3.3.2.7 Invasive Species

At least 46 invasive aquatic species have become established in waters of San Pedro Bay (Los Angeles and Long Beach Harbors) (Gregorio and Layne 1997). These include a Japanese brown alga (*Sargassum muticum*), bubble snail (*Philine auriformis*), Japanese mussel (*Musculista senhousia*), an isopod (*Sphaeroma quoyanum*), and yellowfin goby (*Acanthogobius flavimanus*). The primary source of these organisms is likely to have been discharge of ballast water from cargo vessels using the ports (NRC 1996; USCG 1998). Other potential vessel sources include hulls, anchors and chains, piping and tanks, propellers, and suction grids, while other non-vessel sources include aquarists and restaurant live fish trade. A total of 33 non-native species were identified in the 2000 surveys (MEC and Associates 2002). In the West Basin area, 11 non-native species were found in the soft bottom and riprap samples. These species included *Dipolydora socialis*, *Polydora cornuta*, *Pseudopolydora paucibranchiata*, *Eochelidium* sp., *Aricidea catherinae*, *Sigambra tentaculata*, *Levinsenia gracilis*, Asian clam, Pacific oyster, and Mediterranean mussel. The occurrence of non-native species is also discussed above under each habitat type. Invasive species can compete with or prey upon native species and thus alter the local ecology, which can have economic effects as well.

The Mediterranean strain of Caulerpa (*Caulerpa taxifolia*) is an invasive alga that is listed as a federal noxious weed under the Plant Protection Act. This species has never been identified in San Pedro Bay but is of particular concern because it is a fast growing green alga native to tropical waters where it typically grows in isolated patches. However, in areas outside its native range, Caulerpa grows rapidly and quickly overtakes native species. In the Mediterranean, Caulerpa has caused ecological devastation by overwhelming local seaweed species and altering fish distributions. Its rampant growth has also resulted in huge economic losses by harming tourism, pleasure boating, fishing, and the diving industry. Species of Caulerpa are used in the aquarium trade and can enter coastal marine waters through disposal of the plants or aquarium water into storm drains or coastal waters. Currently, Caulerpa has been found in two Southern California locations. Due to its potential to create severe ecological and economic losses, a Caulerpa survey must be completed in accordance with the Caulerpa Control Protocol (NOAA and CDFG 2006, Appendix M) prior to any underwater disturbance (defined as bulkhead repair, pile driving, dredging, placement of navigational aids, etc).

3.3.2.8 Significant Ecological Areas

The County of Los Angeles has established Significant Ecological Areas (SEAs) to preserve a variety of biological communities for public education, research, and other non-disruptive outdoor uses. SEAs do not preclude limited development that is compatible with the biological community. Policies and regulations for SEAs do not apply within city boundaries. No SEAs are present in the West Basin. The closest designated SEA is Terminal Island, Pier 400 for California least tern nesting (County of Los Angeles 2005).

3.3.2.9 Essential Fish Habitat

In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act, an assessment of EFH was prepared for the Channel Deepening Project that included impacts of dredging and filling in the West Basin (35-acre [14-ha] and 75-acre [30-ha] fills in the Southwest Slip). The Berths 136-147 Terminal proposed Project is located within an area designated as EFH for two Fishery Management Plans (FMPs): Coastal Pelagics Plan and Pacific Groundfish Management Plan. Of the 94 species federally managed under these plans, five are known to occur in the West Basin and could be affected by the proposed Project (Table 3.3-2).

Table 3.3-2. Fisheries Management Plan Species in the Proposed Project Area

Common Name	*Scientific Name*	*Notes*
COASTAL PELAGICS FMP		
Northern anchovy	*Engraulis mordax*	Most common species in Harbor; adults & larvae present (1,2,3)
Pacific sardine	*Sardinops sagax*	Abundant species in Harbor; predominantly adult (1,3)
Pacific mackerel	*Scomber japonicus*	One of top ten species in deeper portions of the Harbor; adult (1); common in lampara net samples, particularly in fall with 1 collected in West Basin (3)
Jack mackerel	*Trachurus symmetricus*	One of top ten species in deeper portions of the Harbor; adult (1,2); common in lampara net samples (3)
PACIFIC GROUNDFISH FMP		
English sole	*Parophrys vetulus*	Rare; adult; 1 of 30,733 fish caught in trawl (1); 3 out of 57,884 fish by trawl, 1 was in West Basin (3)
Sources: (1) MEC 1988; (2) MEC 1999; (3) MEC and Associates 2002.		

One of the five species in the Coastal Pelagics FMP, northern anchovy, is well represented in the proposed Project area, with both adults and larvae present. Pacific sardine is also present. Both species support a commercial bait fishery in the Outer Harbor. Adult jack mackerels are common and likely prey upon northern anchovy in the West Basin. Adult Pacific mackerel are uncommon in the West Basin with only one collected in a year's sampling. None of the seven Pacific Groundfish FMP species found in the Inner Harbor are common, and only one, English sole, has been reported in recent surveys of the West Basin (MEC and Associates 2002).

3.3.2.10 Wetlands and Other Special Habitats

3.3.2.10.1 Wetlands

Wetlands are regulated under the Clean Water Act (CWA). The definition of wetlands varies among state and federal agencies, but the USACE uses a three-parameter method that includes assessing vegetation, hydrology, and soils. Wetlands commonly present in estuarine to marine habitats are salt marshes dominated by pickleweed (*Salicornia virginica*) and other salt tolerant plant species. No wetlands under the USACE jurisdiction are present at or near the proposed Project site. The closest via water are at Cabrillo Beach in the Outer Harbor, over three miles (4.8 km) from the proposed Project.

3.3.2.10.2 Eel Grass Beds

Another special habitat in the Harbor is eel grass (*Zostera marina*). Eel grass is a rooted aquatic plant that inhabits shallow soft bottom habitats in quiet waters of bays and estuaries as well as sheltered coastal areas (Dawson and Foster 1982). It can form dense beds that provide substrate, food, and shelter for a variety of marine organisms. Most eel grass beds in bays or estuaries are found in water less than 20 feet (6 m) deep with light being the primary limiting factor. Eel grass beds are considered "special aquatic sites" under the CWA. Surveys of the Harbor in 2000 found eel grass beds along Cabrillo Beach and in the Pier 300 Shallow Water Habitat (MEC and Associates 2002). No eel grass beds are present in the proposed Project area, nor would West Basin be considered likely habitat for eelgrass due to water depths and absence of suitable soft bottom habitat. The closest eelgrass beds are in the shallow water adjacent to Cabrillo Beach.

3.3.2.10.3 Kelp Beds

Small kelp beds are present in the Outer Harbor along the breakwater and on the containment dike for the Cabrillo Shallow Water Habitat (MEC and Associates 2002). No kelp was observed in the West Basin during the 2000 baseline surveys.

3.3.2.10.4 Mudflats

The shoreline at and near the proposed Project site is rock riprap with wharves. No mudflats are present.

3.3.3 Applicable Regulations

3.3.3.1 Clean Water Act

This Act (33 U.S.C §1251 *et seq*.) provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation's waters. Discharges of pollutants must be authorized through National Pollutant Discharge Elimination System (NPDES) permits. Under Section 404, the USACE issues permits for discharge of dredge or fill materials into waters of the U.S. including wetlands and other special aquatic sites. A Section 401 water quality certification or waiver from the RWQCB is

also necessary for issuance of a Section 404 permit. Additional water quality permitting requirements may include compliance with the Section 402 NPDES General Construction Permit for Storm Water Discharges Associated with Construction Activity (including the development of a Storm Water Pollution Prevention Plan [SWPPP]) issued by the State Water Resources Control Board (SWRCB) for projects that will disturb 1 or more acres (0.4 ha).

3.3.3.2 Rivers and Harbors Appropriations Act of 1899

Sections 9 and 10 of the Act (33 U.S.C. §401 *et seq*.) regulate development in navigable water, including dredging, filling, and bridges. Section 9 relates to bridges and causeways and is administered by the U.S. Coast Guard. Under Section 10, the USACE issues permits for construction, dumping, and dredging in navigable waters as well as construction of piers, wharves, weirs, jetties, outfalls, aids to navigation, docks, and other structures. In coastal areas, it is typical for permits issued by the USACE to reference their Section 10 and Section 404 authorities.

3.3.3.3 Federal Endangered Species Act

The ESA (16 U.S.C. 1531 *et seq*.) protects threatened and endangered species, and their designated critical habitat, from unauthorized take. Section 9 prohibits such take, and defines take as to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct. Take incidental to otherwise lawful activities can be authorized under Section 7 when there is federal involvement and under Section 10 when there is no federal involvement. The USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries (also known as the National Marine Fisheries Service) share responsibilities for administering the ESA. Whenever actions authorized, funded, or carried out by federal agencies could affect listed species, the lead agency must conduct formal consultation under Section 7. The Biological Opinion issued at the conclusion of that consultation, depending on the outcome of the consultation, will include a statement authorizing any take that may occur incidental to an otherwise legal activity. Federal action agencies make a determination as to whether the action will have "no effect" or "may affect" a listed species or designated critical habitat. If a "may effect" determination is made, the action agency consults informally with the Services to determine if the effect will be adverse or not, and the Services then provide a concurrence letter to the action agency.

3.3.3.4 Magnuson-Stevens Fishery Conservation and Management Act

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (16 U.S.C. §1801 *et seq*.) require federal agencies that fund, permit, or carry out activities that may adversely impact EFH to consult with National Marine Fisheries Service (NMFS, now called NOAA Fisheries) regarding potential adverse effects of their actions on EFH and respond in writing to the recommendations of NOAA Fisheries. In addition, NOAA Fisheries is required to comment on any state agency activities that would impact EFH.

3.3.3.5 Migratory Bird Treaty Act

This act (16 U.S.C. §703 *et seq*.), as amended, provides for the protection of migratory birds by making it illegal to possess, pursue, hunt, take, or kill any migratory bird species, unless specifically authorized by a regulation implemented by the Secretary of the Interior, such as designated seasonal hunting. The act also applies to removal of nests occupied by migratory birds during the breeding season. Under certain circumstances, a depredation permit can be issued to allow limited and specified take of migratory birds.

3.3.3.6 California Fish and Game Code, Section 1600

Section 1600 *et seq.* of the Fish and Game Code requires notification of the CDFG before activities that would substantially alter the bed, bank, or channel of a stream, river, or lake, including obstructing or diverting the natural flow. This applies to all perennial, intermittent, and ephemeral water bodies as well as the associated riparian vegetation that are used by fish and wildlife resources. CDFG may or may not assert jurisdiction of coastal or port areas including shipping channels. Activities that have the potential to affect jurisdictional areas can be authorized through issuance of a Streambed Alteration Agreement (SAA). The SAA specifies conditions and mitigation measures that will minimize impacts to riparian or aquatic resources from proposed actions.

3.3.3.7 California Endangered Species Act

The California Endangered Species Act (California Fish and Game Code Section 2050 *et seq*.) provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the CDFG, and prohibits the taking of such species without authorization by CDFG under Section 2081 of the Fish and Game Code. State lead agencies must consult with CDFG during the CEQA process if state-listed threatened or endangered species are present and could be affected by the proposed Project. For projects that could affect species that are both state and federally listed, compliance with the federal ESA will satisfy the state Act if CDFG determines that the federal incidental take authorization is consistent with the state Act under Fish and Game Code Section 2080.1.

3.3.3.8 Ballast Water Management for Control of Nonindigenous Species Act

California PRC Section 71200 *et seq*. (enacted January 1, 2000), and as amended by AB 433 in September 2003, requires ballast water management practices for all vessels, domestic and foreign, carrying ballast water into waters of the state after operating outside the Exclusive Economic Zone (EEZ). Specifically, the regulation prohibits ships from discharging ballast water within port waters unless they have performed an exchange outside the EEZ in deep, open ocean waters. Alternatively, ships may retain water while in port, discharge to an approved reception facility, or implement other similar protective measures. Each ship must also develop a ballast water management plan to minimize the amount of ballast water discharged in the Port. The Act also requires an analysis of other vectors for release of non-native

species from vessels. Rules for vessels originating within the Pacific Coast Region took effect in March 2006. Ships must now exchange ballast water on coast-wise voyages. Regulations currently under consideration for future years (2009-2022) will require phase-in of ballast water treatment performance standards, first for newly constructed ships and then for existing ships.

3.3.3.9 Marine Mammal Protection Act

The MMPA (16 U.S.C. §1361 *et seq*.) prohibits the taking (including harassment, disturbance, capture, and death) of any marine mammals, except as set forth in the act. NOAA Fisheries and the USFWS administer this act. Species found in the Harbor are under the jurisdiction of NOAA Fisheries.

3.3.4 Impacts and Mitigation Measures

3.3.4.1 Methodology

Impacts to biota were assessed by estimating the amount of habitat that would be gained/lost or disturbed, through use of the water quality and sediment analyses results (Sections 3.13), and from preparer expertise and judgment. Mitigation for impacts to marine biological resources has been developed by the Port in coordination with the National Marine Fisheries Service, USFWS, and CDFG through agreed-upon mitigation policy (USACE and LAHD 1992, Appendix B). This policy defines the value of different habitats within the Harbor relative to a system of mitigation credits accrued by creating or enhancing habitat in the Harbor and at off-site locations. The assessment of impacts is based on the assumption that the proposed Project will include the following:

- A Section 401 (of the CWA) Certification from the RWQCB for construction dredging and filling activities that contains conditions including standard Waste Discharge Requirements (WDRs).
- An individual NPDES permit for construction stormwater discharges or coverage under the General Construction Activity Storm Water Permit will be obtained for the onshore portions of the proposed Project.
- Monitoring would be conducted to ensure that return water flow from disposal of dredge material behind the fill dikes meets the RWQCB requirements for settleable solids and toxic pollutants.
- Dredged contaminated sediments would be placed and confined in the in-Harbor disposal sites that are engineered and constructed in such a manner that the contaminants cannot enter Harbor waters after the fill is complete, or be taken to an approved upland disposal site.
- The tenant would obtain and implement the stormwater discharge permits.

3.3.4.1.1 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of a project that exist at the time of the NOP. These environmental conditions would normally constitute the baseline physical conditions by which the CEQA lead agency determines whether an impact is significant. For purposes of this Draft EIS/EIR, the CEQA Baseline for determining the significance of potential impacts under CEQA is December 2003. CEQA Baseline conditions are described in Table 2-2 of Section 2.4.

The CEQA Baseline represents the setting at a fixed point in time, with no project growth over time, and differs from the "No Project" Alternative (discussed in Section 2.5.1) in that the No Project Alternative addresses what is likely to happen at the site over time, starting from the baseline conditions. The No Project Alternative allows for growth at the proposed Project site that would occur without any required additional approvals.

3.3.4.1.2 NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the No Federal Action scenario. The No Federal Action/NEPA Baseline condition for determining significance of impacts coincides with the "No Federal Action" condition, which is defined by examining the full range of construction and operational activities the applicant could implement and is likely to implement absent permits from the USACE. Therefore, the No Federal Action/NEPA Baseline would not include any dredging, filling of the Northwest Slip, wharf construction or upgrades, or crane replacement. The No Federal Action/NEPA Baseline would include construction and operation of all upland elements (existing lands) for backlands or other purposes. The upland elements are assumed to include:

- Adding 57 acres of existing land for backland area and an on-dock rail yard;
- Constructing a 500-space parking lot for union workers;
- Demolishing the existing administration building and constructing a new LEED certified administration building and other terminal buildings;
- Adding new lighting and replacing existing lighting, fencing, paving, and utilities on the backlands;
- Relocating the Pier A rail yard and constructing the new on-dock rail yard;
- Widening and realigning Harry Bridges Boulevard; and
- Developing the Harry Bridges Buffer Area.

Unlike the CEQA Baseline, which is defined by conditions at a point in time, the No Federal Action/NEPA Baseline is not bound by statute to a "flat" or "no growth" scenario; therefore, the USACE may project increases in operations over the life of a project to properly analyze the No Federal Action/NEPA Baseline condition. Normally, any ultimate permit decision would focus on direct impacts to the aquatic environment, as well as indirect and cumulative impacts in the uplands determined to be within the scope of federal control and responsibility. Significance of the

proposed Project or alternative is defined by comparing the proposed Project or alternative to the No Federal Action/NEPA Baseline (i.e., the increment). The No Federal Action/NEPA Baseline conditions are described in Table 2-2 of Section 2.4.

The No Federal Action/NEPA Baseline also differs from the "No Project" Alternative, where the Port would take no further action to construct and develop additional backlands (other than the 176 acres that currently exist). Under this alternative, no construction impacts would occur. However, forecasted increases in cargo throughput would still occur to a point, as more cargo is forced through the terminal through operational changes.

3.3.4.2 Thresholds of Significance

The significance criteria have been developed using the *Los Angeles CEQA Thresholds Guide* (City of Los Angeles 2006) and were modified to better assess impacts of the proposed Project. Consequently, criterion **BIO-2** has been modified to delete locally-designated species (since none are present) and to include state and federally designated habitats (e.g., EFH, mudflats, and wetlands), criterion **BIO-3** has been modified to cover species other than sensitive species, **BIO-4** has been deleted because it is now included in **BIO-2**. **BIO-5** is now **BIO-4** and has been modified to only address disruption of local biological communities, and a new criterion, **BIO-5,** has been added for permanent loss of marine habitat. Impacts of a project on biological resources are considered to be significant if the project would result in any of the following:

BIO-1 The loss of individuals, or the reduction of existing habitat, of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

BIO-2 A substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

BIO-3 Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a species.

BIO-4 A substantial disruption of local biological communities (e.g., from construction impacts or the introduction of noise, light, or invasive species).

BIO-5 A permanent loss of marine habitat.

3.3.4.3 Impacts and Mitigations

3.3.4.3.1 Proposed Project

3.3.4.3.1.1 Construction Impacts

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened,

rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Dredging and filling as well as backland improvements and wharf construction/ reconstruction activities would be unlikely to affect listed, candidate, or special concern species through temporary increases in noise, vibration, and turbidity, as well as the potential for displacement of individuals from the work area. No critical habitat for any federally-listed species is present. The Inner Harbor is not considered an important area for California least tern or California brown pelican foraging based on survey information (see sections 3.3.2.5.1 and 3.3.2.5.2). The proposed Project area also does not provide any other habitat values for the least tern and provides only limited perching/resting sites for the brown pelican. Dredging/filling activities and the resultant temporary turbidity would affect few if any individuals of these species because few could be present, and other foraging areas are available nearby in the West Basin and in other areas of the Harbor if construction disturbances cause them to avoid the work areas. Foraging in the proposed Project area could also continue with no adverse effects to either species. The peregrine falcon feeds on other birds (e.g., rock dove, starlings, etc.) and would not be affected by proposed Project activities because no prey would be lost and only a small amount of potential foraging area would be temporarily affected. The peregrine falcon foraging area extends for miles (Grinnell and Miller 1986), and thus covers much of the Harbor as well as land areas to the west and north. No known peregrine falcon nesting areas (Vincent Thomas and Schuyler F. Heim bridges) would be affected due to distance from the proposed Project activities. The Vincent Thomas Bridge is over 0.5 mile (0.8 km) from Berth 147 and over 1.2 miles (1.9 km) from Northwest Slip, and the Schuyler R. Heim Bridge is over 2 miles (3.2 km) from the West Basin. The backland areas and the area of the Harry Bridges Boulevard widening and buffer area project, a component of the proposed Project, are not used by sensitive species for resting, foraging (except potentially by the peregrine falcon), or breeding, and thus none of these species would be present to be affected by proposed Project construction activities.

Other sensitive species in the Harbor that could use the water surface and on-shore facilities in the West Basin include the double-crested cormorant, black skimmer, elegant tern, California gull, long-billed curlew, and common loon. The black skimmer, long-billed curlew, and common loon are not common in the Harbor while the other three species can be abundant in some seasons (MEC and Associates 2002). No nesting habitat exists at the proposed Project site for any of these species so their presence at or near the proposed Project site would be for the purposes of feeding in the Harbor waters, resting on the water surface, or roosting on structures. These species would be able to use other areas within the West Basin or the Harbor if construction activities occurred when they were present and if the disturbances caused them to avoid the work area. Thus, no individuals would be lost and their populations would not be adversely affected by construction activities.

Underwater noise levels during dredging may range between 111 and 175 dB (re 1 μPa) at 33 ft (10 m) depending on dredge type (Dickerson et al. 2001, Bassett Acoustics 2005). Pile driving produces noise levels of 177 to 220 dB (re 1 μPa) at 33 ft (10 m) depending on material and size of piles (Hastings and Popper 2005). With the exception of pile driving, underwater noise levels associated with construction activities would be below the Level A harassment (potential to injure) level of 180 dB_{rms} (re 1 μPa) for marine mammals (Federal Register 2005). Sound pressure waves

in the water caused by pile driving could affect the hearing of marine mammals (e.g., sea lions) swimming in the West Basin. Observations during pile driving for the San Francisco-Oakland Bay Bridge East Span seismic safety project showed sea lions swam rapidly out of the area when the piles were being driven (Caltrans 2001). Thus, sea lions, which are sometimes present in the West Basin, would be expected to avoid areas where sound pressure waves could affect them. Harbor seals are unlikely to be present as few have been observed in the West Basin (MEC and Associates 2002). Any seals or sea lions present in the West Basin during construction would likely avoid the disturbance areas and thus would not be injured. No other protected or sensitive marine species normally occur in the West Basin area.

Rock for construction of the new or rebuilt dike face at Berths 145-147 and for containing the Northwest Slip fill would be transported from a Catalina Island quarry by barge. The Berths 145-147 work would require two barges per day for 40.5 days, and the Northwest Slip fill dike would require 2 barges per day for 23.5 days. These two activities would not occur concurrently. Two barges per day from Catalina Island to the West Basin would not adversely affect marine mammals in the ocean or in the Outer Harbor and Main Channel because few if any individuals would be present in these vessel traffic routes due to their sparse distribution in the open ocean (whales, porpoises/dolphins, seals, and sea lions) and in the Harbor (sea lions and harbor seals only) as well as their agility and ability to avoid damage by vessels.

The USACE has made a "no effect" determination for federally-listed species in accordance with requirements of Section 7 of the ESA.

CEQA Impact Determination

As described above, construction activities on land and in the water would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals; impacts would, therefore, be less than significant under CEQA. No critical habitat for federally-listed species is present, and no impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

As described above, in-water and the Northwest Slip fill construction activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals; therefore, impacts would be less than significant under NEPA. Backland construction activities on the existing backlands are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water work, and no residual impacts would occur for backlands construction.

Impact BIO-2a: Construction activities would result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

The proposed Project would have no effect on the FMP species that do not occur in the West Basin, and minimal effects on those that are rare or uncommon, such as Pacific mackerel and English sole (MEC and Associates 2002), because few if any individuals would be in the disturbance area. The loss of water column habitat due to placement of fill (9.5 acres; 3.9 ha), however, would result in a loss of habitat and food sources for the FMP species that use the Northwest Slip. The loss of habitat would not likely have a measurable effect on sustainable fisheries because it would not measurably reduce the stocks of these species in the areas where they are harvested (primarily off shore in the open ocean). Loss of habitat for pelagic fish species that might use the Northwest Slip, particularly northern anchovy, would be considered a substantial effect that would be mitigated in accordance with established mitigation requirements as described in **Impact BIO-5**). The most common FMP species present are northern anchovy, Pacific sardine, and jack mackerel (MEC and Associates 2002). Dredging, pile removal, and wharf construction/upgrades at Berths 136-147 also could affect these FMP species through habitat disturbance (e.g., pile removal and rock riprap placement), turbidity and suspension of contaminants from the sediments associated with dredging along the berths and disposal of the material, and vibration (sound pressure waves) from pile and sheetpile driving. These effects would be temporary, occurring at intervals lasting approximately 1 to 88 days during the 24-month construction period, with a return to baseline conditions between construction activities and following construction (see section 3.13 for discussion of turbidity duration). No permanent loss of habitat would occur from the wharf work and few if any individual fish would be lost because most individuals would avoid the work area, resulting in no loss of sustainable fisheries.

Demolition and reconstruction of the wharf at Berths 146-147 would result in a net increase of about 0.3 acre (0.1 ha) of water surface under the wharf as a result of slope reconstruction for the new wharf at Berth 147. The water would be within the intertidal zone and shaded by the wharf so that little EFH benefit would accrue from the small amount of new water column habitat. Disturbances in the water column during wharf construction activities at Berths 145-147 would affect individuals of FMP species present in those areas during the in-water construction phase as described above.

Construction activities on land (including the Harry Bridges Boulevard widening, buffer area, and railyard relocation) would have no direct effects on EFH, which is located in the water. Runoff of sediments from such construction, however, could enter Harbor waters.

As discussed in Section 3.13, implementation of sediment control measures (e.g., sediment barriers and sedimentation basins) would minimize such runoff.

Natural Habitat or Plant Community

No kelp or eelgrass beds are present in the proposed Project area, and those in other parts of the Harbor would not be affected by construction activities in the Berths 136-147 area due to their distance from the proposed Project. No designated SEAs, including the least tern nesting site on Pier 400, would be affected by the proposed Project because no construction activities would take place at or near the only SEA in the Harbor. No wetlands (including salt marsh) or mudflats would be affected because none are present within the area that could be influenced by proposed Project construction activities. The closest such habitats are more than three miles (4.8 km) from the proposed Project.

CEQA Impact Determination

Filling of the Northwest Slip would result in a permanent loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, a significant impact under CEQA. Dredging and wharf construction activities would cause temporary disturbances, but no substantial alteration, to habitat for FMP species that would be less than significant for the reasons described above. Construction activities in the backlands, including the railyard relocation, and for road improvements (Harry Bridges Boulevard widening and buffer area) would have no direct impacts on EFH or other natural habitats because none are present. Indirect impacts through runoff of sediments during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.13 (e.g., project-specific SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would occur because none of these habitats are present at or near the proposed Project site.

Mitigation Measures

Mitigation Measure BIO-1 (see **Impact BIO-5** for detailed description) would apply to this EFH impact. Mitigation of the filling of 9.5 acres (3.9 ha) of Inner Harbor marine habitat would require credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation measure would fully offset proposed Project impacts to EFH sustainable fisheries and loss of general marine habitat (see **Impact BIO-5**). No mitigation is required for impacts to natural habitats, special aquatic sites, or plant communities.

Residual Impacts

The mitigation credits would compensate for the loss of EFH as a result of the proposed Project, leaving no residual impact. No residual impacts would occur for natural habitats, special aquatic sties, or plant communities.

NEPA Impact Determination

Filling of the Northwest Slip would result in a permanent loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, as described above for CEQA, which would be a significant impact under NEPA. Impacts would be less than significant for

other in-water construction activities (e.g., wharf construction/reconstruction and dredging). Runoff of sediments from the Northwest Slip fill during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.13 (e.g., project-specific SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would occur because none are present at or near the proposed Project site. Backland construction activities on existing backlands, the railyard relocation, and Harry Bridges Boulevard widening and buffer area are all part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

Mitigation Measure BIO-1 would apply to this impact. Mitigation of the filling of 9.5 acres (3.9 ha) of Inner Harbor marine habitat would require credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation measure would fully offset proposed Project impacts to EFH sustainable fisheries and loss of general marine habitat (see **Impact BIO-5** below).

Residual Impacts

The mitigation credits would compensate for the loss of EFH as a result of the proposed Project, leaving no residual impact.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

No known terrestrial wildlife or aquatic species migration corridors are present in the proposed Project area. The California least tern is a migratory bird species that nests on Pier 400, and construction of proposed Project facilities in the West Basin and on the adjacent backlands would not interfere with the aerial migration of this species. Movement to and from foraging areas in the Harbor also would not be affected by any of the proposed Project construction activities. The western snowy plover is also a migratory species, and a few migrating individuals have been observed at the least tern nesting site in recent years. Breeding individuals of the California brown pelican move to breeding sites in Mexico and at offshore islands for part of the year. A number of other water-related birds that are present at least seasonally in the Harbor are migratory as well. Construction activities in the West Basin and on the adjacent lands would not block or interfere with migration or movement of any of these species because the work would be in a small portion of the Harbor area where the birds occur and the birds could easily fly around or over the work.

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by the proposed Project during construction activities on land and in the water as described above, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Dredging, filling, and wharf work in the water as well as backland construction activities on the Northwest Slip fill would not affect any wildlife movement or migration corridors as described above; therefore, no impacts would occur under NEPA. Backland construction activities on existing lands are all part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4a: Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.

Dredging

Dredging for the proposed wharf upgrade and new wharf at Berths 146-147 would deepen approximately 3.6 acres (1.5 ha) of soft bottom habitat in a linear strip approximately 1,700 feet (518 m) long and permanently remove 1.1 acres (0.5 ha) in Phase I (Table 3.3-3). At Berths 136-139, Phase I dredging would affect about 2.3 acres (0.9 ha). About 0.3 acre (0.1 ha) would be dredged to key-in the dike for the Northwest Slip fill in Phase II. Benthic invertebrates living in and on the sediments to be dredged adjacent to the berths would be lost. At a biomass of 21 grams/square meter (g/m^2), approximately 0.5 metric ton of invertebrates living in the sediments would be removed. The habitat would be altered by making it permanently deeper through dredging, but the newly exposed sediments would be colonized by invertebrates, especially polychaetes, beginning immediately after the dredging stops in each location. A community similar to that currently present would develop within 2 to 5 years (Soule and Oguri 1976, MEC 1988) in the localized area of disturbance. Because a small proportion of the soft bottom in the West Basin would be affected by the dredging, the benthic community in the West Basin or the Harbor would not be disrupted. The replacement of soft bottom with rocky dike would permanently remove 0.1 metric tons of invertebrates, but the rocky dike would be colonized by a diverse assemblage of marine organisms at a higher biomass (41 to over 3,000 g/m^2; LAHD 1981, MEC and Associates 2002) than that found in the soft bottom sediments (21 g/m^2; MEC and Associates 2002) based on observed biomass of organisms in/on those habitats.

Table 3.3-3. Berth 136-147 Habitat Impact Summary (in acres)

Construction Phase	*Location*	PERMANENT IMPACTS			TEMPORARY IMPACTS	
		Soft Bottom	*Rocky Dike/ Sheet Pile*	*Water Surface*	*Soft Bottom*	*Hard Bottom*
I	Berths 145-147 (wharf improvements)	-1.1	+1.8	+0.3	3.6	0.6
I	Berths 136-139 (dredging)	—	+0.6	—	2.3	—
II	The Northwest Slip (10-ac fill)	-7.6	-2.5	-9.5	0.3	1.7
II	Berth 136 (400' extension)	—	—	—	—	—
	Total Berths 136-147	**-8.7**	**-0.1**	**-9.2**	**6.2**	**2.3**

Notes: Acreages are approximate and are based on a water surface elevation of +4.8 feet MLLW.

Benthic organisms in a narrow strip of soft bottom areas adjacent to the dredging and on the riprap, piles, and bulkheads along the berths would be subjected to temporary disturbances from turbidity and sediment resuspension and deposition generated by dredging. Lethal and sub-lethal effects that could occur include direct mortality, arrested development, reduction in growth, reduced ingestion, depressed filtration rate, and increased mucous secretion. Some benthic organisms could be buried by sediments settling on them while others would be able to move upward as the sediments accumulate. Effects of turbidity and sediment deposition on the benthic habitat would be temporary with rapid recovery of the benthic communities that reside in the sediments, and the West Basin benthic community would not be substantially disrupted.

Removal of the top layer of sediment which, in some areas, contains accumulated contaminants and sediments deposited over time from numerous sources, including terrestrial inputs such as stormwater runoff and aerial deposition, would decrease the potential for bioaccumulation of contaminants in aquatic organisms residing in the West Basin. Thus, placing the contaminated sediments in a landfill or confined disposal facility (CDF) would provide an overall benefit to organisms in the West Basin and the Harbor as a whole, by removing a pollutant source.

Planktonic organisms would be temporarily affected by turbidity within the water column. Turbidity can impact plankton populations by lowering the light available for phytoplankton photosynthesis and by clogging the filter feeding mechanisms of zooplankton. Effects on plankton would be short term and limited to the immediate vicinity of the dredging because these organisms move with the currents through the study area, making the duration of their exposure to turbidity plumes short. Planktonic organisms have a naturally occurring high mortality rate, and their reproductive rates are correspondingly high (Dawson and Pieper 1993) which allows for rapid recovery from small, localized impacts. Thus, West Basin and Harbor planktonic organism communities would not be substantially disrupted. Elutriate tests on the sediments to be dredged indicate that significant biological impacts will not occur from resuspension of sediments containing contaminants or mobilization of the contaminants into the water column (AMEC 2003) (see Section 3.13). In addition, dilution by tidal waters moving into and out of the Harbor, wind-induced

mixing, and diffusion would further reduce the low concentrations of contaminants potentially present.

Fish in the water column and on or near the bottom of the West Basin would be temporarily disturbed by the dredging activities as a result of turbidity, noise, displacement, and vibration. Most fish would leave the immediate area of the dredging, although some may stay to feed on invertebrates released from the sediments. No mortality of fish has been observed in the Outer Harbor as a result of dredging activities associated with the Deep Draft Navigation Improvements Project (Pier 400) (USACE and LAHD 1992). Recolonization of areas affected by dredging would begin immediately and provide a food source for fish. There would be no substantial disruption of Inner Harbor fish communities because the affected area represents only a small proportion of the total available foraging area in the West Basin. Marine mammals such as sea lions, in the West Basin and the Harbor at the time of construction, could be temporarily disturbed by construction activities, but any individuals present would likely avoid the work area. Few, if any, would be present based on survey data from 2000 (MEC and Associates 2002). Construction activities would not interfere with marine mammal foraging because the disturbances would be in localized areas of the West Basin and large foraging areas would remain available to them elsewhere in the West Basin and throughout the Harbor.

Northwest Slip Fill

Effects of constructing the 10-acre (4-ha) fill in the Northwest Slip are addressed above under **Impact BIO-1** relative to sensitive species. For common marine species (benthos, plankton, fish), the loss of marine habitat in the Northwest Slip would result in a loss of marine productivity approximately equal to the proportion of Inner Harbor marine habitat lost (less than one percent). These habitats are already highly modified/channelized due to past port developments, and thus have lower ecological functions and values than open ocean or even Outer Harbor habitats (MEC and Associates 2002) as described in the mitigation credit agreements (e.g., LAHD 1997). Consequently, loss of marine habitat through filling the Northwest Slip would not substantially disrupt biological communities in the West Basin or the Inner Harbor. Turbidity resulting from the filling operation could affect plankton and fish in the same manner as described for dredging. However, the location would be within and immediately adjacent to the Northwest Slip, and the duration would be 25 days. This short duration and limited area of effect would not adversely affect the West Basin biological community as a whole.

As described in Section 3.13, construction of the new landfill will have minor effects on water quality and circulation. Consequently, temporary, localized variations in water quality would not adversely affect West Basin biological communities.

Wharf and Backland Construction

Construction of a new 705-foot (215-m) wharf at Berth 147 would add approximately 1.5 acres (0.6 ha) of new rocky dike hard substrate habitat, while upgrades at Berths 145-146 would add about 0.3 acre (0.1 ha) of vertical sheet pile habitat. Approximately 0.6 acre (0.2 ha) of rocky dike would be removed and replaced for a temporary, localized impact. Demolition and reconstruction of the wharf at Berths 146-147 would result in a net increase of about 0.3 acre (0.1 ha) of water surface under the wharf. The water would be

within the intertidal zone and shaded by the wharf, so that only marginal aquatic habitat benefit would accrue from the small amount of new water column created. Approximately 275 new concrete piles would be installed in the water for the new wharf, and another 319 piles (not all in water) would be installed as part of the existing wharf upgrades. At Berths 136-139, about 0.6 acre (0.2 ha) of vertical sheet pile habitat would be added prior to dredging between the pierhead line and the Federal channel. Construction of the new 400-foot (123-m) wharf extension at Berth 136 would add about 215 new piles in the water. The new pilings, installed to support these wharves and the sheet pile at Berths 136-139 and 145-146, would add hard substrate habitat in the West Basin. Removal of 770 timber pilings at Berth 147 and 360 concrete pilings from partial demolition of the wharf at Berth 146 would reduce the amount and type of piling habitat in the water column. The installation of about 490 concrete piles (Berths 146-147 plus Berth 136 extension) would partially offset this loss.

Construction of wharf and container terminal facilities on the new landfill, as well as construction on previously developed areas, could affect biological resources through: (1) noise and vibration, and (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving) would likely cause most fish and birds to temporarily leave the immediate construction area. Fish and bird populations would not be adversely affected because the small number of individuals moving into other areas, the short duration of the disturbance, and the small area affected would not substantially disrupt West Basin biological communities. Backland and road improvement activities, including the railyard relocation and Harry Bridges Boulevard widening and buffer area, would have minimal effect on terrestrial biota because the species present are non-native and/or adapted to use of developed sites. Disturbances to marine species would be temporary, and the animals present could move to other nearby areas for the duration of the disturbance. Consequently, local biological communities of this industrial area would not be substantially disrupted.

Runoff of pollutants from backland construction activities would be minimized through use of best management practices (BMPs) (see Section 3.13), and the low concentrations that could enter Harbor waters would not adversely affect marine organisms.

Accidents

Accidents on land could result in runoff of pollutants, but levels that could adversely affect aquatic biota near the point of discharge to the Harbor are unlikely due to containment, rapid cleanup, and implementation of runoff control measures as described in **Impact WQ-1d**.

Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during dredging and disposal of the material are unlikely to occur during the proposed Project (see Section 3.13 **Impact WQ-1d**) and adversely affect aquatic biota to the degree that local biological communities are not substantially disrupted. Any such spills would be small and cleaned up immediately, resulting in loss of only a few common marine organisms and causing no adverse effects on biological communities as a whole. A larger spill that could have locally substantial effects on biological resources is not expected to occur, even under reasonable worst-case conditions (see Section 3.7, Hazards). Accidental spills of pollutants during construction on land would be small because large quantities of such substances would not be used during construction.

These spills would be contained and cleaned up with no runoff to Harbor waters (see Section 3.13).

CEQA Impact Determination

Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described above, and impacts would, therefore, be less than significant. Runoff of pollutants from backland construction activities would not substantially disrupt biological communities in the West Basin and would have only localized, short-term, less than significant impacts on marine organisms in the immediate vicinity of drain outlets due to implementation of runoff control measures that are part of the proposed Project (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation basins – see Section 3.13.4.3 for a list of measures). Accidental spills from equipment during dredging would not substantially disrupt local biological communities because they would be small, contained, cleaned up immediately, and affect only a few common marine organisms, and thus would have localized, less than significant impacts. Accidental spills during construction on land would not reach Harbor waters due to the implementation of BMPs, and thus would have no impacts on marine communities. No notice to proceed will be issued without approval of the specific SWPPP and BMPs.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Construction activities in waters of the West Basin and on the Northwest Slip fill would result in no substantial disruption of West Basin biological communities for the reasons described above, and impacts, therefore, would be less than significant. Backland construction activities on existing lands would be part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water work and no residual impacts would occur for work on land.

Impact BIO-5: Landfill construction in the Northwest Slip would result in a permanent loss of marine habitat.

Creation of the landfill in the Northwest Slip would occur in Phase II, after 2015. Placement of fill would cause a loss of aquatic habitat, including water surface, water column, soft bottom, and hard substrate. The beneficial uses associated with that habitat would also be lost. Because the landfill surface would be above the water surface and the shoreline slopes (see Figure 3.3-1), approximately 9.5 acres (3.9 ha) of habitat would be lost as measured at +4.8 MLLW loss of hard substrate in the water from the fill placement for a net loss of 2.5 acres (1.1 ha). The rocky dike lost due to the fill would result in a loss of approximately 9 metric tons of intertidal invertebrates and 35 metric tons of subtidal invertebrates, although 2.5 metric tons of the intertidal, and 15 metric tons of the subtidal, loss would be short term due to colonization of the new dike face.

CEQA Impact Determination

Construction of a 10-acre (4-ha) fill in the Northwest Slip would cause a permanent loss of 9.5 acres (3.1 ha) of aquatic habitat in the Los Angeles Inner Harbor as described above, and this impact is considered significant under CEQA.

Mitigation Measures

LAHD has developed, and continues to develop as needed, mitigation projects to provide mitigation credits for impacts of development in the Harbor to marine biological resources in coordination with NOAA Fisheries, USFWS, and CDFG through agreed-upon mitigation policies (USACE and LAHD 1992). These policies specify the values of existing habitats in the Harbor in a system of credits that are related to surface area, water depth, and location within the Harbor. Regarding depth, shallow water habitats are those less than –20 feet MLLW (water surface at +4.8 feet MLLW) with deep habitats being anything below that. The relative habitat value scale is: 0.5 for Inner Harbor habitats (shallow and deep), 1.0 for Outer Harbor deep habitats, and 1.5 for Outer Harbor shallow habitats. Mitigation credit values are assigned to mitigation project habitats equivalent to Outer Harbor deep habitats. Thus, each single mitigation credit would offset impacts to one acre of deep Outer Harbor habitat, two acres of Inner Harbor habitat, and 0.5 acre of Outer Harbor shallow habitat. The habitat credits from mitigation projects are banked for use in mitigating impacts of developments within the Harbor.

Mitigation credits from past habitat restoration projects that are available to offset impacts of the Berths 136-147 proposed Project and other projects in the Harbor are listed in Table 3.3-4. The Port has approximately 6 Inner Harbor credits in its mitigation banks and 155 credits in the Bolsa Chica and Outer Harbor banks. The latter banks would supply 310 Inner Harbor credits (212 + 98 in last column of Table 3.3-4). Table 3.3-5 shows the mitigation credits that have been committed for projects and those that would be required for upcoming projects, excluding the proposed Project, for a total of 72 credits. The Berths 136-147 proposed Project would require approximately 9.5 acres (3.9 ha) of mitigation in Inner Harbor credits or 4.75 acres (1.9 ha) in deep Outer Harbor credits. Tables 3.3-4 and 3.3-5 show that more than enough credits would be available to cover those needed for the proposed Project.

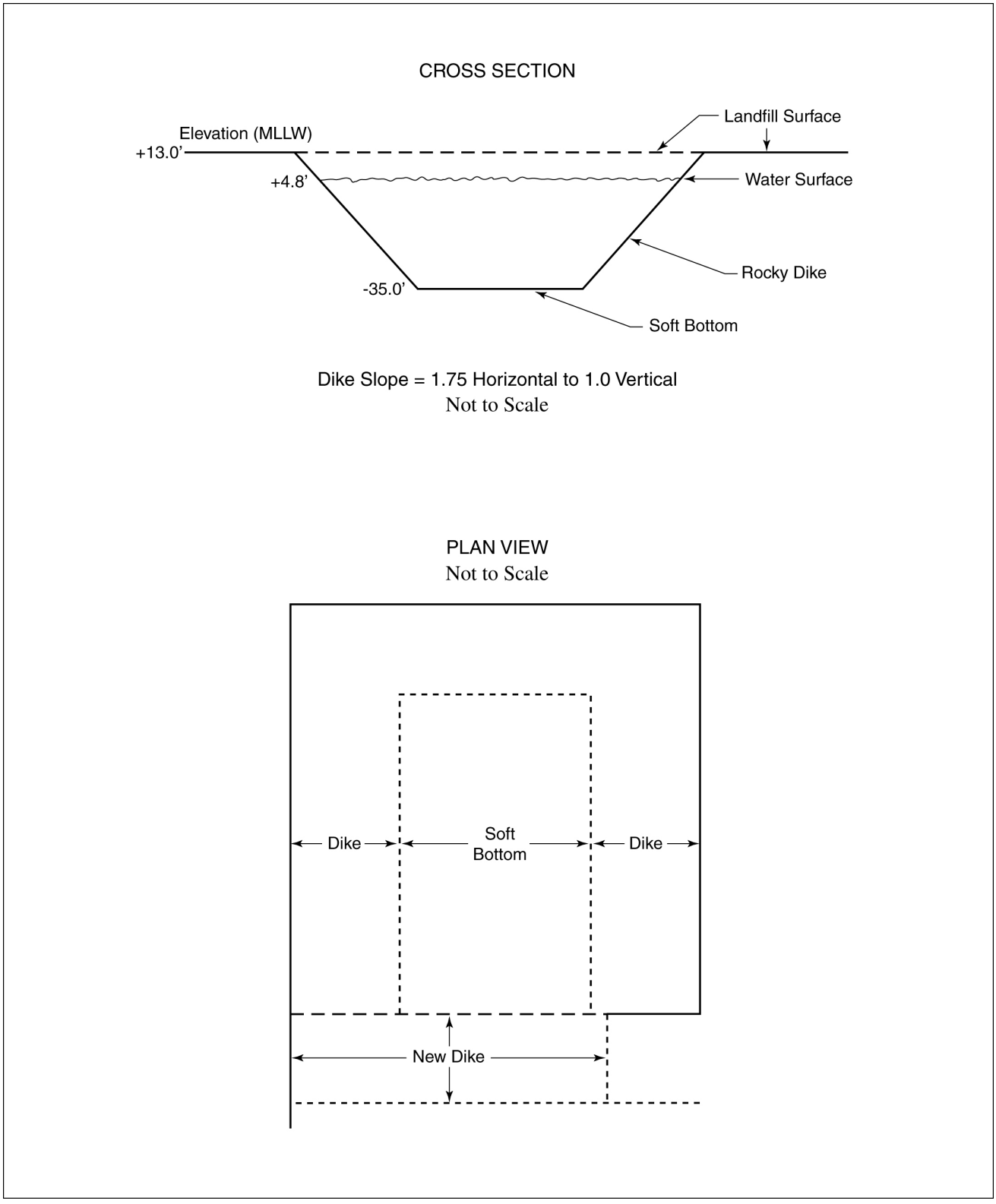

Figure 3.3-1. Northwest Slip Fill Cross Section and Plan View

Table 3.3-4. Mitigation Available for Proposed Berths 136-147 Project

Mitigation Bank	*Approximate Credits Available*	*Value in Deep Outer Harbor*[1]	*Value in Shallow Outer Harbor*[2]	*Slips*[3]
Bolsa Chica Bank	106	106	71	212
Outer Harbor Bank	49	49	33	98
Inner Harbor Bank[4]	6.2	n.a.	n.a.	6
TOTAL	161	155	103	316

Notes:

1. 1.0 credit is equal to one acre of fill in deep Outer Harbor.
2. 1.5 credits are equal to one acre of fill in shallow Outer Harbor.
3. 0.5 credit is equal to one acre of fill in Inner Harbor.
4. Inner Harbor Bank credits can only be used to mitigate Inner Harbor habitat loss.

Table 3.3-5. Estimated Credits for Committed and Upcoming Port Projects

Projects	*Credits*
COMMITTED CREDITS[1]	
Berths 100-109 (China Shipping	-21.5
Pier 300A	-71.5
Cabrillo SWH Expansion A	+27.0
Cabrillo Phase II	-1.2
Subtotal	-67.2
UPCOMING PROJECTS[2]	
Berth 243-245 (Southwest Marine)	-4.0
NW Slip – 5-acre Fill	-2.5
Cabrillo SWH Expansion B	+22.5
Berth 121-131 (Yang Ming)	-14.0
Eelgrass Habitat Area	-13.5
Bridge to Breakwater	+4.4
Subtotal	-7.1
Total	--74.3

1. Estimated number of credits required, relative to deep Outer Harbor credits.
2. Not including Berths 136-147 (proposed Project)

BIO-1. The LAHD shall apply 4.75 credits (= 9.5 Inner Harbor acres) available in the Bolsa Chica or Outer Harbor mitigation banks to compensate for loss of fish and wildlife habitat due to construction of fill in the Northwest Slip of the West Basin. Credit accounting and debiting of credits from either the Bolsa Chica or Outer Harbor mitigation banks shall occur prior to issuance of a Section 10/404 Permit by the USACE.

Residual Impacts

This measure would completely mitigate the significant loss of Inner Harbor habitat for aquatic species by replacement through existing mitigation agreements/banks. Therefore, no residual impact would remain.

NEPA Impact Determination

Construction of a 10-acre (4-ha) fill in the Northwest Slip would cause a permanent loss of 9.5 acres (3.1 ha) of aquatic habitat in the Los Angeles Inner Harbor, as described above, and this impact is considered significant under NEPA.

Mitigation Measures

Mitigation Measure BIO-1 would apply to this impact as described for CEQA.

Residual Impacts

Mitigation Measure BIO-1 would completely mitigate the significant loss of Inner Harbor habitat for aquatic species by replacement through existing mitigation agreements/banks. No residual impact would remain.

3.3.4.3.1.2 Operational Impacts

Operation of the new facilities would result in the permanent addition of hard substrate habitat, shading of the waters under the new/reconstructed wharves, runoff of pollutants from redeveloped terminal surfaces, and increased potential for accidental spills of pollutants into Harbor waters. All of these effects would occur in the West Basin, plus runoff from the railyard would enter storm drains that empty into Consolidated Slip. Vessel traffic effects would occur from the approach to Angels Gate, through the Outer Harbor (in the Glenn Anderson Ship Channel) and the Main Channel, to Berths 136-147 in the West Basin.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Operation of new and upgraded terminal facilities in the West Basin would not adversely affect any of the state- or federally-listed, or special concern bird species listed in Table 3.3-1. Those species that currently use the West Basin area (see **Impact BIO-1a**) for foraging or resting could continue to do so because the proposed Project would not appreciably change the industrial activities in the West Basin or cause a loss of habitat for those species. Operation of the backland facilities (e.g., cranes, railyard, and container transfers) would not measurably change the numbers or species of common birds in that area and, thus, would not affect peregrine falcon foraging. Perching locations for birds such as the California brown pelican would still be present. The increase in vessel traffic of one vessel every 4 to 5 days would cause a short interval of disturbance throughout the route from Angels Gate to Berths

136-147 in the West Basin but would not result in a loss of habitat or individuals for sensitive birds that use the water surface for resting or foraging.

An estimated 88 additional vessel calls per year above the CEQA baseline of 246 (84 above the No Federal Action/NEPA Baseline of 250) to the Port would result from the proposed Project. Underwater sound from these vessels or tug boats used to maneuver them to the berth would add to the existing vessel traffic noise in the Harbor. Because a doubling in the number of vessels (noise sources) in the Harbor would be necessary to increase the overall underwater sound level by 3 dBA (FHWA 1978), the small increase in vessels relative to the total using the Harbor (2,800 per year in Los Angeles Harbor) would not result in a measurable change in overall noise. Adding one vessel transit every 4 to 5 days will not adversely affect marine mammals in the Outer Harbor, Main Channel, and the West Basin because the transit distance would be short and infrequent, few individuals would be affected (large numbers are not present in the Harbor), sea lions would be expected to avoid sound levels that could cause damage to their hearing (as described in **Impact BIO-1a**), and overall underwater noise levels would not be measurably increased. Vessels approaching Angels Gate would pass through nearshore waters, and sound from their engines and drive systems could disturb marine mammals that happen to be nearby. However, few individuals would be affected because the animals are generally sparsely distributed (i.e., have densities of less than 5 individuals per 100 square km [Forney et al. 1995]), the animals would likely move away from the sound as it increases in intensity from the approaching vessel, and exposure would be of short duration. Noise levels associated with vessel traffic, including near heavily used ferry terminals, generally range between 130 and 136 dB (re 1 µPa) (WSDOT 2006), which are below the injury threshold of 180 dB_{rms} (re 1 µPa).

No critical habitat for any of the listed species is present in the Harbor, so no critical habitat would be affected by operation of the proposed Project.

CEQA Impact Determination

Operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from proposed Project-related vessels would affect few if any marine mammals for the reasons described above; impacts would, therefore, be less than significant under CEQA. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Operational activities for in-water facilities and on the Northwest Slip fill would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate

species, or Species of Special Concern, and underwater sound from proposed Project-related vessels would affect few if any marine mammals for the reasons described above; therefore, impacts would be less than significant under NEPA. Operation of facilities on the existing backlands is part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for operation of facilities in the water and on the Northwest Slip fill. No residual impacts would occur for operations on the existing backlands.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Operation of proposed Project facilities in the West Basin would have minimal effects on EFH. An increase in vessel traffic of 88 visits per year over the CEQA Baseline (246 vessels) and 84 over the No Federal Action/NEPA Baseline (250 vessels) due to the proposed Project would not increase overall noise as described in **Impact BIO-1b**. The added noise only occurs during vessel transit to and from the berth, so it is a short duration event. Thus, the proposed Project vessels would add to the number of noise events, but not to the overall underwater noise level. The addition of one vessel trip every 4 to 5 days will not adversely affect FMP species present in the Outer Harbor, Main Channel, or the West Basin because the proposed Project would add approximately 3 percent to the existing vessel traffic in the Port In recent history, the Port has witnessed an improvement in fish abundance including EFH species (MEC 2002) even though there has been increased vessel traffic in the harbor. Therefore, additional ship calls would not adversely affect EFH species. Operation of proposed Project facilities on land, including the railyard and buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Natural Habitat or Plant Community

As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that could be affected by operation of proposed Project facilities, including the relocated railyard, widened Harry Bridges Boulevard, and the buffer area. No wetlands or mudflats are present in the proposed Project area, and those in other areas of the Harbor are not located in or near (over one mile, 1.6 km, away from) the channels used for vessel movement within the Harbor. Thus, these habitats would not be affected by operational activities in the West Basin or vessel transit through the Harbor to the West Basin.

CEQA Impact Determination

Operational activities on land and in the water would not substantially reduce or alter EFH for the reasons described above, resulting in less than significant impacts to EFH under CEQA. No SEAs, natural plant communities, wetlands, or mudflats are present, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for SEAs, natural plant communities, wetlands, and mudflats.

NEPA Impact Determination

Operational activities in the water and on the Northwest Slip fill would not substantially reduce or alter EFH for the reasons described above, resulting in less than significant impacts to EFH under NEPA. Operational activities in the water would result in no impacts to SEAs, natural plant communities, wetlands, and mudflats because none are present. Operational activities on existing land are part of the No Federal Action/NEPA Baseline and thus would not result in the impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for SEAs, natural plant communities, wetlands, and mud flats.

Impact BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors.

As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species migration corridors are present in the proposed Project area, either on land or in the water. Migration by bird species that visit or pass through the proposed Project area would not be affected by the changes in terminal operations because the new structures would not impede their movement. Operation of the backland facilities, railyard, and buffer area would not interfere with any terrestrial migration corridors because none are present in those areas. Proposed Project-related vessel traffic to and from the Harbor would not interfere with marine mammal migrations along the coast because these vessels would represent a small proportion (3 percent) of the total Port-related commercial traffic in the area, and each vessel would have a low probability of encountering migrating marine mammals during transit through coastal waters because these animals are generally sparsely distributed.

CEQA Impact Determination

No wildlife movement or migration corridors on land or in the water would be affected by the proposed Project for the reasons described above, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Proposed Project facilities and their operation would not affect any wildlife movement or migration corridors in the water or on the Northwest Slip fill for the reasons described above; therefore, no impacts would occur under NEPA. Operation of facilities on the existing backlands is part of the No Federal Action/NEPA Baseline, and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4b: Operation of the new facilities would not substantially disrupt local biological communities.

The new hard substrate (rocky dike, sheet piles, and pilings) would add to benthic productivity in the Harbor while pilings would also add structure in the water column which could be used by invertebrates and fish. Installation of a new wharf at Berth 136 and at Berth 147 would result in shading of the new rocky dike under each berth. The Berth 147 wharf would shade newly placed riprap with no developed benthic community so that the community that develops would be adapted to shade. The new 400-foot (123-m) wharf at Berth 136 would be constructed after the riprap has been in place for several years and has developed a benthic community adapted to full sun. The shade would reduce the benthic community present (MEC and Associates 2002). A reduction in 400 linear feet (123 m) of the riprap community in the West Basin would affect approximately 2 percent of this habitat in the West Basin. Reconstruction of the wharf at Berth 146 would continue shading of the riprap at this location. These changes would alter but not substantially disrupt riprap biological communities in the West Basin because the new structures in the water would replace those removed. Vessel traffic at the reconstructed and new wharves would have minimal direct effects on marine organisms as a result of propeller wash (USACE and LAHD 1992). This traffic increase would adversely affect organisms in the water column, such as fish and plankton, as each vessel passes. The disturbance would cause fish to move at least a short distance and

could damage some individual planktonic organisms through turbulence. Turbidity from the propeller wash would form a small plume behind each vessel. However, this would dissipate rapidly as described for dredging in **Impact BIO-4a**. West Basin and Harbor biological communities would not be substantially disrupted, however, because the physical disturbance would occur in a small area, over a short duration (a few minutes at each location along the route from Angels Gate to the West Basin), and infrequently (once every 4 to 5 days).). The harbor historically has a highly active environment with many ships, tugs and work boats moving along the channels. Addition of vessels calls would not change this environment.

Runoff of pollutants to the Harbor from the new facilities on existing land and the new landfill will have negligible effects on marine biological communities (fish, benthos, plankton) because water quality standards for protection of marine life would not be exceeded (see Section 3.13). Such runoff could occur during dry weather and from storm events. The latter are periodic, primarily during the winter rainy season, and generally of short duration. Discharges of polluted water or refuse from vessels are prohibited by the Port's Tariff, Section 1880. Ballast water discharges in conformance with existing regulations would not add pollutants to Harbor waters. Thus, discharges from vessels that could introduce pollutants into Harbor waters that would adversely affect local biological communities will not increase with the increase in throughput, and biological communities in the Harbor and West Basin will not be disrupted. Impacts from tsunami-induced accidents are discussed in Section 3.7, Hazards and Hazardous Materials.

The landfill in the Northwest Slip would eliminate/cover approximately 7.6 acres (3.1 ha) of sediments and their associated pollutants (see Section 3.13) from the marine environment, thereby preventing contact with marine organisms, including benthic invertebrates, so that those pollutants could not be taken up and passed on to other marine organisms, such as fish, through the food web (bioaccumulation and biomagnification). This beneficial effect would be offset by the permanent loss of marine habitat.

Approximately four new lights would be added on the 10-acre (4-ha) fill with another four near Berths 136-139. The existing lights east of Berths 147-142 would be replaced and another approximately eight lights added. The new lights would all be low glare lights with reduced light emissions (see Section 3.1, Aesthetics). The amount of light in the proposed Project area would not increase. Because the lighting would be in industrial areas, the light would not substantially affect terrestrial wildlife habitat or the species present. Most of the 16 additional new lights would be located away from the water's edge, and this would minimize effects on marine organisms so that biological communities would not be substantially disrupted.

CEQA Impact Determination

Operations would not substantially disrupt West Basin and Harbor biological communities through runoff of contaminants. Existing runoff and storm drain discharge controls as well as conditions of all proposed Project-specific permits would be implemented (see Section 3.13).The presence of new wharf structures, increased vessel traffic, or new lighting would not substantially disrupt West Basin and Harbor biological communities, for the reasons described above. Impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

The new wharf structures in the water column, increased vessel traffic, and new facilities on the Northwest Slip fill would not substantially disrupt West Basin and Harbor biological communities for the reasons described above, and impacts would be less than significant under NEPA. Operation of facilities on existing land is part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water operations, and no residual impacts would occur for operations of land facilities.

Impact BIO-4c: Operation of the new, proposed facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could substantially disrupt local biological communities.

The amount of ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (LAHD 1999) could increase since more and larger container ships would use the Port as a result of the proposed Project. These vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native species in ballast water as described in Section 3.3.3.8. In addition, container ships coming into the Port loaded would be taking on local water while unloading and discharging when reloading. This would also diminish the opportunity for discharge of non-native species. Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native species but is still a possibility.

Non-native algal species can also be introduced via vessel hulls. The California State Lands Commission has issued a report on commercial vessel fouling in California (Takat, Falkner and Gilmore, April 2006). The Commission recommended that the state legislature broaden the state's program and adopt regulations to prevent non-indigenous species introductions by ship fouling. Of particular concern is the introduction of an alga, *Caulerpa taxifolia*. As discussed in Section 3.3.2.7, this species is most likely introduced from disposal of aquarium plants and water and is spread by fragmentation rather than from ship hulls or ballast water; therefore, risk of introduction is associated with movement of plant fragments from infected to

uninfected areas by activities such as dredging and/or anchoring. The Port conducts surveys, consistent with the Caulerpa Control Protocol (NMFS and CDFG 2006) prior to every water related construction project to verify that Caulerpa is not present. This species has not been detected in the Harbors (MEC and Associates 2002) and has been eradicated from known localized areas of occurrence in southern California (http://swr.nmfs.noaa.gov/hcd/caulerpa/factsheet203.htm); therefore, there is little potential for additional vessel operations from the proposed Project to introduce the species. *Undaria pinnatifida*, which was discovered in the Los Angeles/Long Beach Harbors in 2000 (MEC and Associates 2002), may be introduced and/or spread as a result of hull fouling or ballast water, and therefore has the potential to increase in the Harbor via vessels traveling between ports within the EEZ. Invertebrates that attach to vessel hulls could also be introduced in a similar manner.

The new facilities in the West Basin would result in a small increase (88 vessels per year for CEQA and 84 per year for NEPA, or approximately 3 percent) in vessel traffic compared to the total number of vessels entering the Port (approximately 2,800). Considering, the small discharge of non local water from container ships (see above) and the ballast water regulations currently in effect, the potential for introduction of additional exotic species via ballast water would be low from vessels entering from outside the EEZ. The potential for introduction of exotic species via vessel hulls would be increased in proportion to the increase in number of vessels. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007b), which would reduce the potential for transport of exotic species. For these reasons, the proposed Project has a low potential to increase the introduction of non-native species into the Harbor that could substantially disrupt local biological communities, but such effects still occur.

CEQA Impact Determination

While unlikely, operation of the proposed Project facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls and thus could substantially disrupt local biological communities. Impacts would, therefore, be significant under CEQA.

Mitigation Measures

No feasible mitigation is currently available to totally prevent introduction of invasive species via vessel hulls or even ballast water, due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

NEPA Impact Determination

Operation of the proposed Project facilities has a potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls

and thus could substantially disrupt local biological communities. Impacts, therefore, would be significant under NEPA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

3.3.4.3.2 Alternatives

3.3.4.3.2.1 Alternative 1 – No Project Alternative

No new developments would occur in Harbor waters or on the existing backlands under the No Project Alternative (Alternative 1) (i.e., no construction activities would occur). No marine habitat would be lost due to landfill. Biological resources would not be disturbed or habitats altered due to construction activities. For operations, the number of vessels would increase by 4 compared to the CEQA baseline and none compared to the No Federal Action/NEPA Baseline, and this would be 84 less than for the proposed Project.

No impacts under CEQA would occur for criteria **BIO-1a**, **2a**, **3a**, **4a**, and **5** because no construction activities are part of Alternative 1. No federal action would occur and NEPA would not apply, resulting in no impacts.

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

No construction activities on land or in the water would occur for Alternative 1, including no fill of the Northwest Slip. Consequently, no sensitive species or critical habitat would be affected by construction activities. The potential effects of pile driving on marine mammals and of construction disturbances to individual special status birds described for the proposed Project would not occur.

CEQA Impact Determination

No sensitive species or critical habitat would be affected by Alternative 1, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

No construction activities on land or in the water would occur for Alternative 1, including no fill of the Northwest Slip. Consequently, no SEAs, EFH, special aquatic sites, or plant communities, including wetlands, would be affected by construction activities. The effects of loss of EFH in the Northwest Slip and construction disturbances to FMP species described for the proposed Project would not occur.

CEQA Impact Determination

No SEAs, EFH, special aquatic sites, or plant communities, including wetlands, would be affected by Alternative 1, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

No construction activities on land or in the water would occur for Alternative 1, including no fill of the Northwest Slip. Consequently, no wildlife movement/migration corridors would be affected by construction activities. None would be affected by the proposed Project either.

CEQA Impact Determination

No wildlife movement/migration corridors would be affected by Alternative 1, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4a: Construction activities would not substantially disrupt local biological communities.

No construction activities on land or in the water would occur for Alternative 1, including no fill of the Northwest Slip. Consequently, local biological communities

would not be disrupted by construction activities. The disturbances and loss of habitat for common species described for the proposed Project would not occur.

CEQA Impact Determination

Local biological communities would not be disrupted by Alternative 1, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-5: No permanent loss of marine habitat would occur.

No construction activities on land or in the water would occur for Alternative 1, including no fill of the Northwest Slip. Consequently, no permanent loss of marine habitat would occur as compared to the 9.5-acre (3.9-ha) loss of marine habitat for the proposed Project.

CEQA Impact Determination

No marine habitat would be permanently lost in Alternative 1, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Operation of the existing backland facilities would not adversely affect any special status species as described for the proposed Project. An estimated 250 vessel calls to the Port per year (4 above the CEQA baseline of 246; equal to the No Federal Action/NEPA Baseline of 250) would result from Alternative 1. This would be 84 less than for the proposed Project. Underwater sound from these vessels or tug boats used to maneuver them to the berth would not measurably add to the existing vessel traffic noise in the Harbor as described for the proposed Project in **Impact BIO-1b**. Adding one vessel transit every 91 days would have considerably less potential for effects on marine mammals than the proposed Project because the number of vessel calls per year would be much less than for the proposed Project. As described for the proposed Project, vessels approaching Angels Gate would pass through nearshore waters, and sound from their engines and drive systems could disturb marine mammals that happen to be nearby. Few individuals would be affected (animals are generally sparsely distributed), the animals would likely move away from the sound as it increases in intensity from the approaching vessel, and exposure would be of short duration. As described for the proposed Project in **Impact BIO-1b**, these vessels would not adversely affect marine mammals within the Harbor. The small increase in vessel traffic would have no effect on the use of West Basin by rare, threatened, endangered, or special concern bird species in Table 3.3-1 because those individuals that do use the West Basin are adapted to vessel traffic.

No critical habitat for any of the listed species is present in the Harbor, so no critical habitat would be affected by operation of Alternative 1.

CEQA Impact Determination

Operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or special concern species, or Species of Special Concern, and underwater sound from project-related vessels would affect few if any marine mammals; impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Operations activities under Alternative 1 would have minimal effects on EFH. An increase in vessel traffic of 4 visits over the CEQA Baseline (246 vessels) and none over the No Federal Action/NEPA Baseline (250 vessels) would add a small increment to the existing vessel traffic (approximately 2,800 in the Port in 2004) of less than 5 percent of that for the proposed Project and would not increase overall underwater noise as described in **Impact BIO-1b** for the proposed Project. The added noise only occurs during vessel transit to and from the berth, so it is a short duration event. Thus, the project vessels would add to the number of noise events, but not to the overall underwater noise level. The addition of one vessel trip every 91 days will not adversely affect FMP species present in the Outer Harbor, Main Channel, or West Basin because Alternative 1 would add approximately 0.1 percent to the existing vessel traffic in the Port and no EFH would be lost. In recent history, the Port has witnessed an improvement in fish abundance including EFH species (MEC 2002) even though there has been increased vessel traffic in the harbor. Therefore, additional ship calls would not adversely affect EFH species. Operation of proposed Project facilities on land, including the railyard and buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Natural Habitat or Plant Community

As described in **Impact BIO-2a** for the proposed Project, no SEAs, natural plant communities, wetlands, or mudflats are present that could be affected by Alternative 1 operations. Thus, these habitats would not be affected by operational activities in the West Basin or vessel transit through the Harbor to the West Basin.

CEQA Impact Determination

Operational activities would not substantially reduce or alter EFH, resulting in less than significant impacts under CEQA. No SEAs, natural plant communities, wetlands, or mudflats are present, resulting in no impacts under CEQA

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts to EFH would be less than significant, and no residual impacts to SEAs, natural plant communities, wetlands, or mudflats would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3b: Operation of Alternative 1 facilities would not interfere with wildlife movement/migration corridors.

As described in **Impact BIO-3a** for the proposed Project, no known migration corridors for terrestrial wildlife or aquatic species are present in the Harbor. Migration by bird species that visit or pass through the area would not be affected by any changes in terminal operations because no new structures would be present that could impede their movement. Alternative 1-related vessel traffic to and from the Harbor would not interfere with marine mammal migrations along the coast because these vessels would represent a small proportion (0.1 percent) of the total Port-related commercial traffic in the area, and each vessel would have a low probability of encountering migrating marine mammals during transit through coastal waters because these animals are generally sparsely distributed.

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by Alternative 1, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4b: Operation of the existing facilities would not substantially disrupt local biological communities.

No new structures would be operated in Harbor waters resulting in no disruption of local biological communities. Alteration of biological communities described for the proposed Project would not occur.

Vessel traffic at the existing wharves would have minimal direct effects on marine organisms as a result of propeller wash (USACE and LAHD 1992). This traffic increase above the CEQA baseline (4 vessels per year) could adversely affect organisms in the water column, such as fish and plankton, as each vessel passes. The disturbance would cause fish to move at least a short distance and could damage some individual planktonic organisms through turbulence. In addition, turbidity from the propeller wash would form a small plume behind each vessel that would dissipate rapidly as described for dredging in **Impact BIO-4a** for the proposed Project. Biological communities would not be substantially disrupted, however, because the physical disturbance would occur in a small area (within a few feet of the vessel), over a short duration (a few minutes at each location along the route from Angels Gate to the West Basin), and infrequently (once every 91 days). These disturbances would be less frequent than for the proposed Project.

Runoff of pollutants to the Harbor from the existing facilities will be the same as for the proposed Project and would have no effects on local biological communities in

Harbor waters. Discharges of polluted water or refuse from vessels are prohibited by the Port's Tariff, Section 1880. Ballast water discharges in conformance with existing regulations (see Section 3.3.3.8) would not add pollutants to Harbor waters. An increase of 4 vessels per year would not increase discharges from vessels that could disrupt biological communities. Impacts from tsunami-induced accidents are discussed in Section 3.7, Hazards and Hazardous Materials.

No fill would be placed in the Northwest Slip that would cover the contaminated sediments, and no new lights would be added compared to the proposed Project.

CEQA Impact Determination

Operation of existing facilities with 4 additional vessel trips per year would not substantially disrupt local biological communities through runoff of contaminants or increased vessel traffic in Alternative 1, resulting in less than significant impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4c: Operation of the existing facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could substantially disrupt local biological communities.

The amount of ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (LAHD 1999) would be unlikely to increase since only 4 more container ships would use the Port than under baseline conditions, compared to 84 for the proposed Project. These vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native

species in ballast water (see Section 3.3.3.8. Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native species.

Non-native algal species can also be introduced via vessel hulls. The California State Lands Commission has issued a report on commercial vessel fouling in California (Takat, Falkner and Gilmore, April 2006). The Commission recommended that the state legislature broaden the state's program and adopt regulations to prevent non-indigenous species introductions by ship fouling. Of particular concern is the introduction of an alga, *Caulerpa taxifolia*. As described for the proposed Project in **Impact BIO-4c**, the risk for introduction of this species is low. *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC and Associates 2002), may be introduced and-or spread as a result of hull fouling or ballast water, and therefore has the potential to increase in the Harbor via vessels traveling between ports within the EEZ as described for the proposed Project. Invertebrates that attach to vessel hulls could also be transferred in a similar manner, but at a much lower rate than for the proposed Project due to the smaller amount of vessel traffic related to Alternative 1.The continued use of existing facilities at Berths 136-147 in the West Basin would result in a small increase (4 above the CEQA baseline and none over the No Federal Action/NEPA Baseline, a 0.1 percent increase for CEQA) in vessel traffic compared to the total number of vessels entering the Los Angeles Harbor (approximately 2,800 annually). Considering this and the ballast water regulations currently in effect, the potential for introduction of additional exotic species via ballast water would be low from vessels entering from or going outside the EEZ. The potential for introduction of exotic species via vessel hulls would be increased in proportion to the increase in number of vessels. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007b), which would reduce the potential for transport of exotic species. For these reasons, Alternative 1 has a much lower potential to increase the introduction of non-native species into the Harbor that could substantially disrupt local biological communities than the proposed Project.

CEQA Impact Determination

While unlikely, operation of the Alternative 1 facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls that could substantially disrupt local biological communities. Impacts would, therefore, be significant under CEQA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

3.3.4.3.2.2 Alternative 2 – Reduced Project: Proposed Project Without 10-Acre Fill

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Dredging (minus dredging for the Northwest Slip fill dike), backland improvements, and wharf construction/reconstruction activities would be the same as for the proposed Project and would be unlikely to affect listed, candidate, or special concern species through temporary increases in noise, vibration, and turbidity as well as the potential for displacement of individuals from the work area as described in **Impact BIO-1a** for the proposed Project. No critical habitat for any federally-listed species is present in the Alternative 2 area. Disturbances associated with the Northwest Slip fill would not occur, and no potential foraging area for the California least tern, California brown pelican, or any other special status species in Table 3.3-1 would be affected there. Foraging by any of these species in the Alternative 2 area could continue during construction with no adverse effects to the species. Individuals using the West Basin could use other areas within the Harbor if construction activities caused them to avoid the work area. No individuals would be lost and their populations would not be adversely affected by construction activities.

Sound pressure waves in the water caused by pile driving would have the same potential to affect the hearing of marine mammals (sea lions) swimming in the West Basin as described for the proposed Project.

Transport of rock for the wharf work at Berths 144-147 would be the same as for the proposed Project. However, no rock would need to be transported (2 barges per day for 23.5 days) for the Northwest Slip fill dike. Thus, the potential for effects on marine mammals would be approximately one-third less than for the proposed Project.

The USACE has made a no effect determination for federally-listed species in accordance with requirements of Section 7 of the ESA.

CEQA Impact Determination

As described above, construction activities on land and in the water would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals; impacts would, therefore, be less than significant under CEQA. No critical habitat for federally-listed species is present, and no impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

As described above, in-water and the Northwest Slip fill construction activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals; therefore, impacts would be less than significant under NEPA. Backland construction activities on the existing backlands are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

Impact BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

The loss of EFH due to fill of Northwest Slip in the proposed Project would not occur in this alternative. Alternative 2 would have no effect on the FMP species that do not occur in the West Basin, and minimal effects on those that are rare or uncommon, such as Pacific mackerel and English sole (MEC and Associates 2002), because few if any individuals would be in the disturbance area. Effects of dredging, pile removal, and wharf construction/upgrades at Berths 136-147 on FMP species would be the same as described for the proposed Project. No permanent loss of habitat would occur from the wharf work, and few if any individual fish would be lost because individuals would avoid the work area, resulting in no loss of sustainable fisheries.

Construction activities on land from Alternative 2 (including Harry Bridges Boulevard widening and buffer area, and railyard relocation) would have no direct effects on EFH, which is located in the water. Runoff of sediments and contaminants from such construction, however, could enter Harbor waters. As discussed in Section 3.13, implementation of sediment control measures (e.g., sediment barriers and sedimentation basins) and BMPs, would minimize the impacts of such runoff.

Natural Habitat or Plant Community

No kelp or eelgrass beds are present in the Alternative 2 area, and those in other parts of the Harbor would not be affected by construction activities in the Berths 136-147 area due to their distance from the work area. No designated SEAs, including the least tern nesting site on Pier 400, would be affected by this alternative because no construction would take place at or near this SEA. As described for the proposed Project, no wetlands or mudflats are present in the Alternative 2 area, and those in other areas of the Harbor would not be affected by construction activities in the West Basin due to distance from the Alternative 2 site (more than three miles, 4.8 km).

CEQA Impact Determination

No loss of EFH would occur, compared to the 9.5-acre (3.9-ha) loss in the proposed Project, because the Northwest Slip would not be filled. Dredging, pile removal, and wharf construction activities would cause temporary disturbances to habitat for FMP species that would be less than significant as described for the proposed Project. Construction activities in the existing backlands, including the railyard relocation, and road improvements (Harry Bridges Boulevard widening and buffer area) would be the same as for the proposed Project and would have no direct impacts on EFH or other natural habitats because none are present. Indirect impacts through runoff of sediments or contaminants during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.13 (e.g., project-specific SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts to kelp beds, eelgrass beds, wetlands, or mudflats would occur because none of these habitats are present at or near the Alternative 2 site.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts to EFH would be less than significant. No residual impacts to natural habitats, special aquatic sites, or plant communities would occur.

NEPA Impact Determination

No loss of EFH would occur because the Northwest Slip would not be filled. Dredging, pile removal, and wharf construction activities would cause temporary disturbances to habitat for FMP species that would be less than significant as described for the proposed Project. No impacts to kelp beds, eelgrass beds, wetlands, or mudflats would occur as a result of in-water construction because none of these habitats are present at or near the Alternative 2 site. Construction activities in the backlands and for road improvements are

part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts to EFH would be less than significant. No residual impacts to natural habitats, special aquatic sites, or plant communities would occur.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

As described for the proposed Project in **Impact BIO-3a,** Alternative 2 construction activities on land and in the water would not affect wildlife movement/migration corridors.

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by Alternative 2 construction activities on land and in the water, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Dredging and wharf work in the water would not affect any wildlife movement or migration corridors; therefore, no impacts would occur under NEPA. The backland construction activities are all part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4a: Dredging and wharf construction activities would not substantially disrupt local biological communities.

Dredging

For Alternative 2, dredging for the proposed wharf upgrade and new wharf at Berths 146-147 would temporarily deepen approximately 3.6 acres (1.5 ha) of soft bottom habitat and permanently remove 1.1 acres (0.5 ha) in Phase I (Table 3.3-3), the same as described for the proposed Project. At Berths 136-139, Phase I dredging would affect about 2.3 acres (0.9 ha), as for the proposed Project. Temporary effects to the West Basin benthic community from localized turbidity and sediment deposition generated by dredging along Berths 146-147 and 136-139 would be the same as for the proposed Project. Effects of turbidity and resuspension of sediments containing contaminants on planktonic organisms would be limited to the immediate vicinity of the dredging and would be the same as for the proposed Project.

Removal of sediments containing accumulated contaminants through dredging for the wharf work at Berths 145-147 would provide the same benefit to the benthic community in the West Basin and the Harbor as the proposed Project. Temporary disturbances to fish and marine mammals caused by dredging and wharf construction/reconstruction activities for Alternative 2 would be the same as for the proposed Project.

Fish in the water column and on or near the bottom would be temporarily disturbed by the dredging and wharf construction activities as a result of turbidity, noise, displacement, and vibration as described for the proposed Project. Effects on fish populations in the Inner Harbor will be short term and localized with no substantial disruption of local fish communities. Marine mammals, such as sea lions, in the West Basin at the time of construction could be temporarily disturbed by construction activities, but any individuals present would likely avoid the work area. Few, if any, would be present based on survey data from 2000 (MEC and Associates 2002). Construction activities would not interfere with marine mammal foraging because the disturbances would be in localized areas and large foraging areas would remain available to them elsewhere in the West Basin and throughout the Harbor.

Northwest Slip Fill

Effects of disturbances and turbidity from filling the Northwest Slip and keying the dike for that fill would not occur under this alternative.

Wharf and Backland Construction

For Alternative 2, as for the proposed Project, construction of a new 705-foot (215-m) wharf at Berth 147 would add approximately 1.5 acres (0.6 ha) of new rocky dike hard substrate habitat, while upgrades at Berths 145-146 would add about 0.3 acres (0.1 ha) of vertical sheet pile habitat. Approximately 0.6 acres (0.2 ha) of rocky dike would be removed and replaced, for a temporary impact. Demolition and reconstruction of the wharf at Berths 146-147 would result in a net increase of about 0.3 acres (0.1 ha) of water surface under the wharf. At Berths 136-139, about 0.6 acres (0.2 ha) of vertical sheet pile habitat would be added prior to dredging between the pierhead line and the Federal channel. The new pilings, installed to support these wharves and the sheet pile at Berths 136-139 and 145-146, would add hard substrate habitat in the West Basin. Removal of 770 timber pilings at Berth 147 and 360 concrete pilings from partial demolition of the wharf at Berth 146 would reduce the amount and type of piling habitat in the water column. Overall,

the total amount of hard substrate present would remain about the same, and local West Basin biological communities would not be substantially disrupted.

Also for Alternative 2, as described for the proposed Project, construction on previously developed areas could affect biological communities through: (1) noise and vibration, and (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving) would likely cause most fish and birds to temporarily avoid the immediate construction area. Fish and bird populations would not be adversely affected because the small number of individuals moving into other areas of the West Basin, the short duration of the disturbance, and the small area affected would not substantially disrupt West Basin biological communities. Backland and road improvement activities, including the railyard relocation and Harry Bridges Boulevard widening and buffer area, would have minimal effect on terrestrial biota because the species present are non-native and/or adapted to use of developed sites. Disturbances to marine species would be temporary, and the animals present could move to other nearby areas for the duration of the disturbance. Consequently, biological communities in this industrial area would not be substantially disrupted.

Runoff of pollutants from Alternative 2 backland construction activities would be minimized through use of BMPs (see Section 3.13), and the low concentrations that could enter Harbor waters would not adversely affect marine organisms.

Accidents

Accidents on land could result in runoff of pollutants, but levels that could adversely affect aquatic biota near the point of discharge to the Harbor are unlikely due to containment, rapid cleanup, and implementation of runoff control measures as described in **Impact WQ-1d**.

Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during dredging and disposal of the material are unlikely to occur during Alternative 2 construction (see Section 3.13 **Impact WQ-1d**) and would not adversely affect aquatic biota to the degree that West Basin biological communities are substantially disrupted. Any such spills would be small and cleaned up immediately, resulting in loss of few marine organisms and causing no adverse community effects. A larger spill that could have locally substantial effects on biological resources is not expected to occur, even under reasonable worst-case conditions (see Section 3.7, Hazards). Accidental spills of pollutants during construction on land would be small because large quantities of such substances would not be used during construction. These spills would be contained and cleaned up with no runoff to Harbor waters (see Section 3.13).

CEQA Impact Determination

Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described above, and impacts would, therefore, be less than significant. Runoff of pollutants from backland construction activities would not substantially disrupt biological communities in the West Basin and would have only localized, short-term, less than significant impacts on marine organisms in the immediate vicinity of drain outlets due to implementation of runoff control measures that are part of Alternative 2 (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation

basins – see Section 3.13.4.3 for a list of measures). Accidental spills from equipment during dredging would not substantially disrupt local biological communities because they would be small, contained, cleaned up immediately, and affect only a few common marine organisms, and thus would have localized, less than significant impacts. Accidental spills during construction on land would not reach Harbor waters due to the implementation of BMPs, and thus would have no impacts on marine communities. No notice to proceed will be issued without approval of the specific SWPPP and BMPs.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Construction activities from Alternative 2 in the waters of the West Basin would result in no substantial disruption of biological communities, and impacts, therefore, would be less than significant under NEPA. Backland construction activities would be part of the No Federal Action/NEPA Baseline and thus would not result in any impacts.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water work, and no residual impacts would occur for work on land.

Impact BIO-5: No permanent loss of marine habitat would occur.

No permanent loss of marine habitat and its beneficial uses would occur in Alternative 2 because the Southwest Slip fill and 400-foot (122-m) Berth 136 wharf extension would not be built. Compared to the proposed Project, the impacts avoided include loss of 9.5 acres (3.9 ha) of surface water, 7.6 acres (3.1 ha) of soft bottom habitat, and 2.5 acres (1.1 ha) of rocky dike habitat that support approximately 0.7 metric tons of benthic infaunal organisms, and 26.5 metric tons of hard substrate epifaunal invertebrates.

CEQA Impact Determination

No impacts would occur because no marine habitat would be lost.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

No impacts would occur because no marine habitat would be lost.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

As for the proposed Project, operation of new and upgraded terminal facilities in the West Basin under Alternative 2 would not adversely affect any of the state- or federally-listed, or special concern bird species listed in Table 3.3-1. Those species that currently use the West Basin area for foraging or resting could continue to do so because Alternative 2 would not appreciably change the industrial activities in the West Basin or cause a loss of habitat for those species. Operation of the backland facilities (e.g., cranes, railyard, and container transfers), would not measurably change the numbers or species of common birds in that area and, thus, would not affect peregrine falcon foraging. Perching locations for birds such as the California brown pelican would still be available. The increase in vessel traffic of one vessel every 4 to 5 days would cause a short interval of disturbance throughout the route from Angels Gate to Berths 136-147 in the West Basin, but would not result in a loss of habitat or individuals for sensitive birds that use the water surface for resting or foraging.

Increases in vessel traffic would be the same as under the proposed project, an estimated 88 additional vessel calls above the CEQA baseline (84 above the No Federal Action/NEPA Baseline), and underwater sound would not be increased as described in **Impact BIO-1b** for the proposed Project. Adding one vessel transit every 4 to 5 days will not adversely affect marine mammals in the Outer Harbor, Main Channel, and the West Basin because the transit distance would be short and trips infrequent, few individuals would be affected (large numbers are not present in the Harbor), and sea lions would be expected to avoid sound levels that could cause damage to their hearing, and overall underwater noise levels would not be measurably increased. Vessels approaching Angels Gate would pass through nearshore waters, and sound from their engines and drive systems could disturb marine mammals that happen to be nearby. Few individuals would be affected (animals are generally sparsely distributed), the animals would likely move away from the sound as it increases in intensity from the approaching vessel, and exposure would be of short duration. Noise levels associated with vessel traffic, including near

heavily used ferry terminals, generally range between 130 and 136 dB (re 1 µPa) (WSDOT 2006), which are below the injury threshold of 180 dB_{rms} (re 1 µPa).

No critical habitat for any listed species is present in the Harbor, so no critical habitat would be affected by operations of Alternative 2.

CEQA Impact Determination

Operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from Alternative 2 project-related vessels would affect few if any marine mammals. Impacts would, therefore, be less than significant under CEQA. No impact to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Operational activities for in-water facilities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from project-related vessels during Alternative 2 operations would affect few if any marine mammals. Therefore, impacts would be less than significant under NEPA. Operation of facilities on the existing backlands is part of the No Federal Action/NEPA Baseline, and no impacts would occur. No impact to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for operation of in-water facilities, and no residual impacts would occur for backland operations.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Operation of Alternative 2 facilities would have minimal effects on EFH. An increase in vessel traffic of 88 visits per year over the CEQA Baseline (246 vessels) and 84 over the No Federal Action/NEPA Baseline (250 vessels) would occur, as for the proposed Project, and would not increase the overall underwater sound levels as

described in **Impact BIO-1b** for the proposed Project. Additional vessels would add to the number of noise events, but not to the overall underwater noise level. The addition of one vessel trip every 4 to 5 days will not adversely affect FMP species present in the Outer Harbor, Main Channel, or the West Basin because Alternative 2 would add approximately 3 percent to the existing vessel traffic in the Port. These fish species are adapted to the existing noise in the Harbor, and adding a small number of noise events like those already occurring would not adversely affect them. Operation of Alternative 2 facilities on land, including the railyard and buffer area, would not affect EFH because none are present on land. In recent history, the Port has witnessed an improvement in fish abundance including EFH species (MEC 2002) even though there has been increased vessel traffic in the harbor. Therefore, additional ship calls would not adversely affect EFH species. Operation of proposed Project facilities on land, including the railyard and buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Natural Habitat or Plant Community

As described in **Impact BIO-2a**, no natural plant communities, SEAs, wetlands, or mudflats are present that could be affected by operation of the Alternative 2 facilities, including the relocated railyard, widened Harry Bridges Boulevard, and the buffer area. Wetlands or mudflats in other areas of the Harbor are not located in or near (over one mile, 0.6 km, away from) the channels used for vessel movement within the Harbor. Thus, these habitats would not be affected by operational activities in the West Basin or vessel transit through the Harbor to the West Basin.

CEQA Impact Determination

Operational activities on land and in the water would not substantially reduce or alter EFH, resulting in less than significant impacts under CEQA. No SEAs, natural plant communities, wetlands, or mudflats are present, resulting in no impacts under CEQA

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts to EFH would be less than significant, and no residual impacts to natural plant communities, wetlands, or mudflats would occur.

NEPA Impact Determination

Alternative 2 operational activities in the water would not substantially reduce or alter EFH, resulting in less than significant impacts under NEPA. No SEAs, natural plant communities, wetlands, or mudflats are present, resulting in no impacts under NEPA. Operational activities on the backlands are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts to EFH would be less than significant, and no residual impacts to natural plant communities, wetlands, or mudflats would occur.

Impact BIO-3b: Operations activities would not interfere with wildlife movement/migration corridors.

Alternative 2 operations activities on land and in the water would not affect wildlife movement/migration corridors, for the reasons described for the proposed Project in **Impact BIO-3b**.

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by Alternative 2 during operations activities on land and in the water, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

The increased vessel traffic during Alternative 2 operations would not affect any wildlife movement or migration corridors; therefore, no impacts would occur under NEPA. The backland operations activities are all part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4b: Operation of the new facilities would not substantially disrupt local biological communities.

Operations effects associated with Alternative 2 would be less than described for the proposed Project in **Impact BIO-4b** because the amount of new hard substrate under this alternative would be 1.7 acres (0.7 ha) less than for the proposed Project (wharf extension

at Berth 136 would not be built), the area for runoff from backlands would be reduced by 10 acres (3.9 ha), and four less lights would be installed. Shading of the riprap under the Berth 136 wharf extension also would not occur. Vessel traffic at the reconstructed wharves would have minimal direct effects on benthic communities in the West Basin as a result of propeller wash (USACE and LAHD 1992), and vessel traffic effects on water column species would be the same as for the proposed Project (see **Impact BIO-4b**).

Runoff of pollutants to the Harbor from the new facilities on existing land would be the same as described for the proposed Project in **Impact BIO-4b**, while runoff from the fill in the Northwest Slip fill would not occur. Runoff of pollutants would have no adverse effects on water quality (Section 3.13) and, thus, would not adversely affect West Basin biological communities (fish, benthos, plankton). Such runoff could occur during dry weather and from storm events. The latter is periodic, primarily during the winter rainy season, and generally of short duration. Discharges from vessels would be the same as for the proposed Project. Impacts from tsunami-induced accidents are discussed in Section 3.7, Hazards and Hazardous Materials.

The existing lights east of Berths 147-142 would be replaced and another approximately eight lights added, and four new lights would be added near Berths 136-139. The new lights would all be low glare lights with reduced light emissions (see Section 3.1, Aesthetics). The amount of light in the Alternative 2 Project area would not increase. Because the lighting would be in industrial areas, the light would not substantially affect terrestrial wildlife habitat or the species present. Most of the 12 new lights would be located away from the water's edge, and this would minimize effects on marine organisms so that local biological communities would not be substantially disrupted.

CEQA Impact Determination

Alternative 2 operations would not substantially disrupt West Basin or Harbor biological communities through runoff of contaminants, presence of new wharf structures, increased vessel traffic, or new lighting. Existing runoff and storm drain discharge controls as well as conditions of all Alternative 2 Project-specific permits would be implemented (see Section 3.13). Impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

The new wharf structures in the water column and increased vessel traffic would not substantially disrupt local biological communities, and impacts would be less than significant under NEPA. New lighting and runoff from new facilities on land would remain essentially unchanged from the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for operation of in-water structures, and no residual impacts would occur for backlands operations.

Impact BIO-4c: Operation of the new facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could substantially disrupt local biological communities.

The amount of ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (LAHD 1999) from Alternative 2 operations could increase as described for the proposed Project. These vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native species in ballast water (see Section 3.3.3.8. Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native species.

Non-native algal species can also be introduced via vessel hulls. The California State Lands Commission has issued a report on commercial vessel fouling in California (Takat, Falkner and Gilmore, April 2006). The Commission recommended that the state legislature broaden the state's program and adopt regulations to prevent non-indigenous species introductions by ship fouling. Of particular concern is the introduction of an alga, *Caulerpa taxifolia*. As described for the proposed Project in **Impact BIO-4c**, the risk for introduction of this species is low. *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC and Associates 2002), may be introduced and/or spread as a result of hull fouling or ballast water, and therefore has the potential to increase in the Harbor via vessels traveling between ports within the EEZ as described for the proposed Project. Invertebrates attached to vessel hulls could be introduced in a similar manner.

The new Alternative 2 facilities in the West Basin would result in the same small increase (approximately 3 percent) in vessel traffic compared to the total number of vessels entering the Los Angeles Harbor as for the proposed Project. Considering this and the ballast water regulations currently in effect, the potential for introduction of additional exotic species via ballast water would be low from vessels entering from or going outside the EEZ. The potential for introduction of exotic species via vessel hulls would be increased in proportion to the increase in number of vessels. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007b), which would reduce the potential for transport of exotic species. For these reasons, Alternative 2 has a low potential to increase the introduction of non-native species into the Harbor that could substantially disrupt local biological communities, but such effects could occur.

CEQA Impact Determination

While unlikely, operation of the Alternative 2 facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls that could substantially disrupt local biological communities. Therefore, impacts would be significant under CEQA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

NEPA Impact Determination

While unlikely, operation of the Alternative 2 facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls that could substantially disrupt local biological communities. Therefore, impacts would be significant under NEPA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

3.3.4.3.2.3 Alternative 3 – Reduced Wharf

Impacts of the Reduced Wharf Alternative (Alternative 3) on biological resources would be considerably less than those described for the proposed Project because the 10-acre (4-ha) fill and 400-foot (122-m) Berth 136 wharf extension would not occur. In addition, dredging and wharf construction activities would be reduced at Berths 145-147. The 705-foot (215-m) new wharf would not be built, part of the existing concrete wharf would not be removed (360 piles and riprap), the timber wharf and piles (770) would not be removed, and no new riprap would be installed. Thus, no dredging would be necessary in that area. Impacts would be reduced to the dredging of 1.6 acres (0.7 ha) between the existing dike and the Federal channel, installation of 1,000 feet (305 m) of sheet pile creating 0.3 ac (0.1 ha) of hard surface, and driving 105 new concrete piles in the water, along with 214 on land. Impacts of dredging along the wharf at Berths 136-139 would still occur as described for the proposed Project.

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Alternative 3 wharf-related construction disturbances could affect the special status bird species in Table 3.3-1 that use marine waters in the same manner but over a smaller area and for a shorter duration than for the proposed Project due to the smaller amount of wharf work and no landfill construction. Backland construction activities, including the railyard relocation and Harry Bridges Boulevard widening and buffer area, would have the same effects on the peregrine falcon as described for the proposed Project in **Impact BIO-1a**. No critical habitat is present for any federally-listed species. Foraging by any of the bird species in Table 3.3-1 in the Alternative 3 area would continue during construction with no adverse effects to the species, and individuals using the West Basin could use other areas within the Harbor if construction activities caused them to avoid the work area. No individuals would be lost, and their populations would not be adversely affected by construction activities. Pile driving at Berths 145-146 that could affect marine mammal hearing would be reduced from about 275 to 105 piles, thereby reducing the exposure of marine mammals to sound pressure waves in the water. No rock would be imported from Catalina Island because no new dikes would be constructed. This would avoid the potential for effects on marine mammals described for the proposed Project. The USACE has made a no effect determination for federally-listed species in accordance with requirements of Section 7 of the ESA.

CEQA Impact Determination

As described above, construction activities for Alternative 3 on land and in the water would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals. Impacts would, therefore, be less than significant under CEQA. No critical habitat for federally-listed species is present, and no impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

As described above, in-water construction activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals. Therefore, impacts would be less than significant under NEPA. Backland construction activities are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant impacts for in-water work, and no residual impacts would occur for backland construction.

Impact BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

The loss of EFH due to fill of the Northwest Slip would not occur in Alternative 3. Alternative 3 would have no effect on the FMP species that do not occur in the West Basin, and minimal effects on those that are rare or uncommon, such as Pacific mackerel and English sole (MEC and Associates 2002), because few if any individuals would be in the disturbance area. Effects of dredging and wharf upgrades at Berths 136-147 on FMP species would be of the same type but for a shorter duration than that described for the proposed Project in **Impact BIO-2a** because less wharf work would occur. Dredging between the federal channel and the pierhead line would take approximately 10 days at Berths 136-139 and another 10 days at Berths 144-146. No permanent loss of habitat would occur from the wharf work, and few if any individual fish would be lost because individuals would avoid the work area, resulting in no loss of sustainable fisheries. In recent history, the Port has witnessed an improvement in fish abundance including EFH species (MEC 2002) even though there has been increased vessel traffic in the harbor. Therefore, additional ship calls would not adversely affect EFH species. Operation of proposed Project facilities on land, including the railyard and buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Construction activities on land (including the Harry Bridges Boulevard widening, buffer area, and railyard relocation) would have no direct effects on EFH, which is located in the water. Runoff of sediments from such construction, however, could enter Harbor waters. As discussed in Section 3.13, implementation of sediment control measures (e.g., barriers and catch basins) would minimize such runoff.

Natural Habitat or Plant Community

No kelp or eelgrass beds are present in the Alternative 3 Project area, and those in other parts of the Harbor would not be affected by construction activities in the Berths 136-147 area due to their distance from the Alternative 3 site. No designated SEAs, including the least tern nesting site on Pier 400, would be affected by this alternative because no construction activities would take place at or near that SEA. No wetlands or mudflats are present in the Alternative 3 area as described for the proposed Project (**Impact BIO-2b**), and the closest habitats are more than three miles (4.8 km) away.

CEQA Impact Determination

No loss of EFH would occur because the Northwest Slip would not be filled. Dredging and wharf upgrade activities would cause temporary disturbances, but no substantial alteration, to habitat for FMP species that would be less than significant for the reasons described above. Alternative 3 construction activities in the backlands, including the railyard relocation and road improvements (Harry Bridges Boulevard widening and buffer area), would have no direct impacts on EFH or other natural habitats because none are present. Indirect impacts through runoff of sediments during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.13 (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would occur because none of these habitats are present at or near the Alternative 3 site.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH. No residual impacts would occur for natural habitats, special aquatic sites, or plant communities.

NEPA Impact Determination

No loss of EFH would occur because the Northwest Slip would not be filled. Dredging and wharf upgrade activities during Alternative 3 construction would cause temporary disturbances to habitat for FMP species that would be less than significant for the reasons described above. Construction activities in the backlands and for road improvements are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH. No residual impacts would occur for natural habitats, special aquatic sites, or plant communities.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

Terminal construction for Alternative 3 on land and in the water (excluding the Northwest Slip fill and new wharves that are not part of this alternative) would not affect wildlife movement or migration corridors, for the same reasons described for the proposed Project (**Impact BIO-3a**).

CEQA Impact Determination

Construction activities on land and in the water would not interfere with wildlife movement/migration corridors, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Construction in the water from Alternative 3 would not interfere with wildlife movement/migration corridors, and no impacts would occur under NEPA. Backland construction activities are all part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4a: Construction activities would not substantially disrupt local biological communities.

Compared to the proposed Project, Alternative 3 wharf upgrades at Berths 145-146 would result in temporary impacts to soft bottom habitat of 1.6 acres (0.7 ha), a reduction of 2.0 acres (0.8 ha), and no disturbance to hard bottom, a reduction of 0.6 acres (0.3 ha) from the proposed project. No water surface would be lost, no soft bottom would be permanently lost, and 0.3 acres (0.1 ha) of sheet pile habitat would be gained. Soft bottom temporary disturbances resulting from wharf work would affect approximately 0.1 metric tons of invertebrates, a reduction of about 0.2 metric tons compared to the proposed Project. The area affected at Berths 136-139 would be the same as for the proposed Project (see Table 3.3-3). Overall disturbances to benthic organisms, planktonic organisms, fish, and marine mammals would be of the same type as for the proposed project, but of lower magnitude due to the smaller area disturbed during wharf work. Biological communities in the West Basin would not be substantially disrupted by construction activities because the area of disturbance would represent only a small proportion of the marine habitats in the West Basin, benthic organisms will begin recolonization of the disturbed areas immediately, effects on plankton and fish would not be measurable, and the few marine mammals that could be present would avoid the disturbance. The potential for accidental spills of fuel, lubricants, or hydraulic fluid from equipment would be less than for the proposed Project because the duration of equipment working in or over the water would be less.

Effects of construction on the existing backlands, including runoff of pollutants, would be the same for Alternative 3, as described for the proposed Project in **Impact BIO-4a**.

CEQA Impact Determination

Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described above, and impacts would, therefore, be less than significant. Runoff of pollutants from backland construction activities would not substantially disrupt biological communities in the West Basin and would have only localized, short-term, less than significant impacts on marine organisms in the immediate vicinity of drain outlets due to implementation of runoff control measures that are part of Alternative 3 (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation basins – see Section 3.13.4.3 for a list of measures). Accidental spills from equipment during dredging would not substantially disrupt local biological communities because they would be small, contained, cleaned up immediately, and affect only a few common marine organisms, and thus would have localized, less than significant impacts. Accidental spills during construction on land would not reach Harbor waters due to the implementation of BMPs, and thus would have no impacts on marine communities. No notice to proceed will be issued without approval of the specific SWPPP and BMPs.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Construction activities in waters of the West Basin from Alternative 3 would result in no substantial disruption of local biological communities, and impacts would, therefore, be less than significant under NEPA. Backland construction activities are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur. Accidental spills from equipment during dredging would not substantially disrupt West Basin biological communities, resulting in less than significant impacts under NEPA because pollutant plumes from these spills are expected to be small in volume, exposure of marine biological resources would be short and isolated, and few individuals of common species that are abundant in the Harbor would be affected.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water work. No residual impacts would occur for backland construction.

Impact BIO-5: No permanent loss of marine habitat would occur.

No fill would be placed in the Northwest Slip, and no other marine habitat would be lost due to construction of Alternative 3. Compared to the proposed Project the impacts avoided include the loss of 9.5 acres (3.9 ha) of surface water, 7.6 acres (3.1 ha) of soft bottom habitat, 2.5 acres (1.1 ha) of rocky dike habitat that support approximately 0.7 metric tons of benthic infaunal organisms, and 26.5 metric tons of hard substrate epifaunal invertebrates.

CEQA Impact Determination

No impacts would occur because no marine habitat would be lost.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

No impacts would occur because no marine habitat would be lost.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Operation of Alternative 3 facilities in the West Basin would not adversely affect special status bird species (Table 3.3-1) for the reasons described in **Impact BIO-1b** for the proposed Project. Compared to the proposed Project, this alternative would decrease underwater sound caused by project-related vessels because the number of vessel trips would be 34 less than for the proposed Project. The number of vessel trips would be 54 above the CEQA baseline of 246 and 50 above the No Federal Action/NEPA Baseline of 250 (i.e., approximately one vessel every 6 to 7 days). This vessel traffic increase would not result in an overall increase in underwater sound levels in the Outer Harbor, Main Channel, and the West Basin, for the reasons described in **Impact BIO-1b** for the proposed Project. The Alternative 3 construction-related vessel traffic would represent a 2 percent increase in the number of vessels entering the Port annually compared to a 3 percent increase for the proposed Project. The number of individual marine mammals affected as each Alternative 3 construction-related vessel approaches Angels Gate and

traverses the Harbor would still remain small and such animals are expected to avoid approaching vessels. No critical habitat for any listed species is present in the Harbor, so no critical habitat would be affected by Alternative 3 operations.

CEQA Impact Determination

Operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from project-related vessels would affect few if any marine mammals; impacts would, therefore, be less than significant under CEQA. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Wharf-related operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from project-related vessels would affect few if any marine mammals; impacts would, therefore, be less than significant under NEPA. Backland operations are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water facilities. No residual impacts would occur for backlands operation.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Operation of Alternative 3 facilities in the West Basin would have minimal effects on EFH. An increase in vessel traffic of 54 visits per year over the CEQA Baseline (246 vessels) and 50 over the No Federal Action/NEPA Baseline (250 vessels) would be 34 trips less than for the proposed Project and would not add to the overall underwater noise in the Harbor for the same reasons described for the proposed Project in **Impact BIO-2b**. The added noise only occurs during vessel transit to and

from the berth and is a short duration event. The addition of one vessel trip every 6 to 7 days will not adversely affect FMP species present in the Outer Harbor, Main Channel, or the West Basin because Alternative 3 would add approximately 2 percent to the existing vessel traffic in the Port. These fish species are adapted to the existing noise in the Harbor, and adding occasional additional noise events like those already occurring would not adversely affect them. In recent history, the Port has witnessed an improvement in fish abundance including EFH species (MEC 2002) even though there has been increased vessel traffic in the harbor. Therefore, additional ship calls would not adversely affect EFH species. Operation of proposed Project facilities on land, including the railyard and buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Natural Habitat or Plant Community

As described in **Impact BIO-2a** for the proposed Project, no natural plant communities, SEAs, wetlands, or mudflats are present that could be affected by operation of Alternative 3 facilities, including the relocated railyard, widened Harry Bridges Boulevard, and the buffer area. The closest wetlands are over one mile (0.6 km) from the ship channel in the Outer Harbor. Thus, these habitats would not be affected by operations activities in the West Basin or by vessel transit through the Harbor to the West Basin.

CEQA Impact Determination

Alternative 3 operational activities on land and in the water would not substantially reduce or alter EFH, resulting in less than significant impacts to EFH under CEQA. No impacts to natural plant communities, SEAs, wetlands, or mudflats would occur under CEQA because none of these habitats are present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for SEAs, natural plant communities, wetlands, or mudflats.

NEPA Impact Determination

Operational activities in the water would not substantially reduce or alter EFH, resulting in less than significant impacts under NEPA. Operational activities in the water would result in no impacts to natural plant communities, SEAs, wetlands, or mud flats because none are present. Operational activities on land are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for SEAs, natural plant communities, wetlands, and mudflats.

Impact BIO-3b: Operations activities would not interfere with wildlife movement/migration corridors.

Terminal operations in the water (excluding the new wharves which are not part of this alternative) and on land for Alternative 3 would not affect wildlife movement or migration corridors as described for the proposed Project (**Impact BIO-3b**).

CEQA Impact Determination

Operations of Alternative 3 facilities on land and in the water would not interfere with wildlife movement/migration corridors, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Operations of Alternative 3 facilities in the water would not interfere with wildlife movement/migration corridors, and no impacts would occur under NEPA. Backland operations are part of the No Federal Action/NEPA Baseline, resulting in no impacts under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

Impact BIO-4b: Operation of the new facilities would not substantially disrupt local biological communities.

Operations effects from Alternative 3 would be less than described for the proposed Project in **Impact BIO-5b** because the amount of new hard substrate under this alternative would be 3.5 acres (1.4 ha) less than for the proposed Project (wharf extension

at Berth 136 and wharf improvements at Berths 145-147 would not be built), 385 less piles would be installed, the area for runoff from backlands would be reduced by 10 acres (4 ha), and four fewer lights would be installed. Permanent habitat changes would be reduced to the addition of 0.3 acres (0.1 ha) of sheet pile habitat and 105 new concrete piles to be colonized. No loss of soft bottom and hard substrate habitat would occur.

Vessel traffic for Alternative 3 would have minimal direct effects on West Basin biological communities as a result of propeller wash (USACE and LAHD 1992). Local biological communities in the West Basin would not be substantially disrupted by the 105 new piles, which would provide habitat for marine organisms that attach to hard substrates and structure in the water column used by fish. The annual vessel traffic increase associated with Alternative 3 (54 compared to the CEQA baseline and 50 compared to the No Federal Action/NEPA Baseline) would be 34 fewer than for the proposed Project and could adversely affect organisms in the water column, such as fish and plankton, as each vessel passes. The disturbance would cause fish to move at least a short distance and could damage some individual planktonic organisms through turbulence. In addition, turbidity from the propeller wash would form a small plume behind each vessel that would dissipate rapidly as described for dredging in **Impact BIO-4a**. West Basin biological communities would not be substantially disrupted, however, because of the localized nature of the physical disturbance (within a few feet of the vessel), the short duration (a few minutes at each location along the route from Angels Gate to the West Basin), and infrequent occurrence (once every 6 to 7 days).

Runoff of pollutants to the Harbor from the new facilities on existing land would be the same for Alternative 3 as described for the proposed Project in **Impact BIO-4b**, while runoff from the fill in the Northwest Slip fill would not occur. Runoff of pollutants would have no adverse effects on water quality (see Section 3.13), and thus would not be adversely affect West Basin biological communities (fish, benthos, plankton). Such runoff could occur during dry weather and from storm events. The latter is periodic, primarily during the winter rainy season, and generally of short duration. The potential for discharges from vessels that could introduce pollutants into the Harbor would be less than for the proposed Project because 34 fewer vessels would enter the Harbor, and West Basin biological communities would not be substantially disrupted. Impacts from tsunami-induced accidents are discussed in Section 3.7, Hazards and Hazardous Materials.

The existing lights east of Berths 147-142 would be replaced and another approximately eight lights added, and four new lights would be added near Berths 136-139. The new lights would all be low glare lights with reduced light emissions (see Section 3.1, Aesthetics). The amount of light in the Alternative 3 Project area would not increase. Because the lighting would be in industrial areas, the light would not substantially affect terrestrial wildlife habitat or the species present. Most of the 12 new lights would be located away from the water's edge, and this would minimize effects on marine organisms.

CEQA Impact Determination

Alternative 3 operations would not substantially disrupt West Basin biological communities through runoff of contaminants, the presence of new wharf structures,

increased vessel traffic, or new lighting. Impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

The new wharf structures in the water column and increased vessel traffic would not substantially disrupt West Basin biological communities, and impacts would be less than significant under NEPA. Operational activities on land are part of the No Federal Action/NEPA Baseline and thus would not result in impacts described for the CEQA analysis. No impacts would occur.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for in-water operations, and no residual impacts would occur for operations of land facilities.

Impact BIO-4c: Operation of the new facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could disrupt local biological communities.

The potential for introduction of non-native species would be in proportion to the number of Alternative 3 vessels per year (54 above CEQA and 50 above No Federal Action/NEPA Baselines) and would be less than for the proposed Project because 34 fewer vessels would visit the site annually. These vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native species in ballast water (see Section 3.3.3.8). Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native species.

Non-native algal species can also be introduced via vessel hulls. The California State Lands Commission has issued a report on commercial vessel fouling in California (Takat, Falkner and Gilmore, April 2006). The Commission recommended that the state legislature broaden the state's program and adopt regulations to prevent non-indigenous species introductions by ship fouling. Of particular concern is the introduction of an alga, *Caulerpa taxifolia*. As described for the proposed Project in **Impact BIO-4c**, the risk for introduction of this species is low. *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC and Associates 2002), may be introduced and/or spread as a result of hull fouling or ballast water, and therefore has the potential to increase in the Harbor via vessels traveling between

ports within the EEZ as described for the proposed Project. Invertebrates attached to vessel hulls could be introduced in a similar manner.

The new Alternative 3 facilities in the West Basin would result in 34 fewer vessels per year than the proposed Project or 54 above the CEQA baseline and 50 above the No Federal Action/NEPA Baseline. This represents an increase of approximately 2 percent in vessel traffic compared to the total number of vessels entering the Port (approximately 2,800 per year), a decrease of 1 percent compared to the proposed Project. Considering this, and the ballast water regulations currently in effect, the potential for introduction of additional exotic species via ballast water would be low from vessels entering from or going outside the EEZ. The potential for introduction of exotic species via vessel hulls would be increased in proportion to the increase in number of vessels. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007b), which would reduce the potential for transport of exotic species. For these reasons, Alternative 3 has a low potential to increase the introduction of non-native species into the Harbor could substantially disrupt local biological communities of the Harbor, but such effects could occur.

CEQA Impact Determination

While unlikely, operation of the Alternative 3 facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls resulting in a substantial disruption of local biological communities. Therefore, impacts would be significant under CEQA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

NEPA Impact Determination

While unlikely, operation of the Alternative 3 facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls, resulting in a substantial disruption of local biological communities. Therefore, impacts would be significant under NEPA.

Mitigation Measures

No feasible mitigation is currently available to prevent introduction of invasive species via vessel hulls due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time.

Residual Impacts

Residual impacts would be significant.

3.3.4.3.2.4 Alternative 4 – Omni Terminal

Under the Omni Terminal Alternative (Alternative 4), no new developments in Harbor waters would occur (e.g., dredging, filling, and wharf reconstruction/ upgrades). Backland improvements, however would take place, including the Harry Bridges Boulevard widening and buffer area, but not the railyard relocation. No federal action would occur. Therefore, NEPA would not apply and no NEPA-related impacts would occur.

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Alternative 4 construction activities would be limited to work on the existing backlands. These land areas provide no breeding or foraging habitat for any of the bird species in Table 3.3-1, except for the peregrine falcon that could hunt for prey (birds such as rock doves) over the area. This species forages throughout the Harbor area as described for the proposed Project in **Impact BIO-1b**. No prey would be lost due to Alternative 4 construction activities, only a small amount of foraging area would be temporarily affected, and the falcons could use areas away from the Alternative 4 backlands site during construction. No known peregrine falcon nesting areas (Vincent Thomas and Schuyler F. Heim bridges) would be affected due to distance from the Alternative 4 activities. The Vincent Thomas Bridge is over 0.5 mile (0.8 km) from Berth 147 and over 1.2 miles (1.9 km) from Northwest Slip, and the Schuyler R. Heim Bridge is over two miles (3.2 km) from the West Basin. Several of the species (e.g., double-crested cormorant, California gull, and California brown pelican) may use on-shore structures for resting at times, as described in **Impact BIO-1a** for the proposed Project, but other resting areas are available in the West Basin and throughout the Harbor. Thus, none of these species would be adversely affected by Alternative 4 construction activities. No critical habitat for any federally-listed species is present in the Alternative 4 area to be affected by construction.

The USACE has made a no effect determination for federally-listed species in accordance with requirements of Section 7 of the ESA.

CEQA Impact Determination

As described in **Impact BIO-1a** for the proposed Project, Alternative 4 construction activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and impacts would be less than significant under CEQA. No impacts to marine mammals would occur because there would be no in-water work.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Construction activities would not occur in Harbor waters in Alternative 4, and no EFH would be affected. Construction activities on land (including the Harry Bridges Boulevard widening and buffer area) would have no direct effects on EFH, which is located in the water. Runoff of sediments and contaminants from such construction, however, could enter Harbor waters. As discussed in Section 3.13, implementation of sediment control measures (e.g., sediment barriers and sedimentation basins), as well as construction BMPs designed to reduce runoff of construction related pollutants, would minimize such impacts.

Natural Habitat or Plant Community

No marine natural habitats, plant communities (e.g., kelp or eelgrass beds), wetlands, or mudflats are present at or near the Alternative 4 site, and no construction would occur in Harbor waters. The least tern nesting site on Pier 400 SEA would not be affected by construction due to distance from the Alternative 4 site (more than three miles, 4.8 km).

CEQA Impact Determination

Construction would result in no reduction or alteration of EFH, resulting in no impacts under CEQA. Runoff of sediments or contaminants during storm events would not substantially alter EFH because runoff from backland construction activities would be

controlled as described in Section 3.13 through use of BMPs. Impacts would be less than significant under CEQA. No SEAs, kelp beds, eelgrass beds, mudflats, or wetlands would be affected by construction activities because none are present at or near the Alternative 4 site, resulting in no impacts.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for natural habitats, special aquatic sites, or plant communities, including wetlands.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

Terminal construction for Alternative 4 would not affect wildlife movement or migration corridors, the same as described for the proposed Project (**Impact BIO-3a**).

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by construction activities, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4a: Construction activities would not substantially disrupt local biological communities.

No construction would occur in Harbor waters due to Alternative 4, resulting in no direct effects on marine habitats and species. Effects of construction on existing backlands, excluding the railyard relocation that is not part of this alternative, would be the same as described for the proposed Project (**Impact BIO-4a**), including runoff of pollutants and accidents.

CEQA Impact Determination

Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described above, and impacts would, therefore, be less than significant. Runoff of pollutants from backland construction activities would not substantially disrupt biological communities in the West Basin and would have only localized, short-term, less than significant impacts on marine organisms in the immediate vicinity of drain outlets due to implementation of runoff control measures that are part of Alternative 4 (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation basins – see Section 3.13.4.3 for a list of measures). Accidental spills from equipment during dredging would not substantially disrupt local biological communities because they would be small, contained, cleaned up immediately, and affect only a few common marine organisms, and thus would have localized, less than significant impacts. Accidental spills during construction on land would not reach Harbor waters due to the implementation of BMPs, and thus would have no impacts on marine communities. No notice to proceed will be issued without approval of the specific SWPPP and BMPs.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-5: No permanent loss of marine habitat would occur.

No fill would be placed in the Northwest Slip, and no other marine habitat would be lost due to construction of Alternative 4, as compared to the 9.5-acre (3.9-ha) loss of marine habitat for the proposed Project.

CEQA Impact Determination

No permanent loss of marine habitat would occur, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Operation of new and upgraded on-shore terminal facilities in the West Basin would not adversely affect any of the state- or federally-listed, or special concern bird species listed in Table 3.3-1. Those species that currently use the area for foraging or resting could continue to do so because Alternative 4 would not appreciably change the industrial activities in the West Basin or cause a loss of habitat for those species. Operation of the backland facilities would not measurably change the numbers or species of common birds in that area and, thus, would not affect peregrine falcon foraging. Perching locations for birds such as the California brown pelican would still be available as described for the proposed Project.

Operation of the Omni Terminal would result in 163 fewer vessels per year than the CEQA baseline conditions and 167 less than the No Federal Action/NEPA Baseline (251 less than the proposed Project), and this would have no effects on marine mammals compared to the baseline.

CEQA Impact Determination

Operational activities from Alternative 4 would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and impacts would be less than significant under CEQA. Vessel traffic would have no impacts on marine mammals because the amount of traffic would be less than the baseline. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Alternative 4 would have 251 less vessels per year than the proposed Project, 163 less than the CEQA baseline, and 167 less than the No Federal Action/NEPA Baseline. The reduced number of vessels per year during operations, compared to the proposed Project and the baselines, would eliminate impacts to EFH described in **Impact BIO-2b**. Operation of Alternative 4 facilities on land, including the buffer area, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded due to the use of required BMPs and control measures (see Section 3.13).

Natural Habitat or Plant Community

No natural habitats or plant communities, SEAs, or special aquatic sites are present at or near the Alternative 4 site. Those in the Outer Harbor are more than three miles (4.8 km) from the site, and none are in the vessel transit route through the Harbor to the West Basin. Thus, project operations would not affect any of these habitats or plant communities.

CEQA Impact Determination

Impacts of operations to EFH would be less than significant as described in **Impact BIO-2b** for the proposed Project because no EFH would be substantially reduced or altered. No impacts would occur to SEAs, natural habitats, special aquatic sites, or plant communities because none of these habitats are present near the site or vessel traffic lanes to the Alternative 4 berths.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH. No residual impacts would occur for SEAs, natural habitats, special aquatic sites, and plant communities.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3b: Operations would not interfere with wildlife movement/ migration corridors.

Terminal operations associated with Alternative 4 would not affect wildlife movement or migration corridors as described for the proposed Project (**Impact BIO-3b**).

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by operations, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO- 4b: Operations of the Alternative 4 facilities would not substantially disrupt local biological communities.

Fewer (251 per year) vessels would call at the Omni Terminal than at the proposed Project berths, and this would result in proportionately less underwater noise. The number of vessels for Alternative 4 would also be less than either the CEQA or No

Federal Action/NEPA Baseline. Vessel traffic at the existing wharves would have minimal direct effects on marine organisms as a result of propeller wash (USACE and LAHD 1992). Turbidity from the propeller wash would form a small plume behind each vessel. However, this would dissipate rapidly as described for dredging in **Impact BIO-4a**. Runoff of pollutants from Omni Terminal operation would be the same as for the proposed Project from existing lands. Four fewer new lights would be installed than for the proposed Project with the same minimal effects on marine organisms and terrestrial wildlife.

CEQA Impact Determination

Operation of the Alternative 4 facilities would not substantially disrupt local biological communities on land or in the water through runoff of contaminants, vessel traffic, and new lighting. Impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4c: Operation of the new facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could disrupt local biological communities.

Under Alternative 4, the number of vessels using the terminal per year would be less than for the proposed Project and the baseline (CEQA and No Federal Action/NEPA). This would reduce the potential for introduction of non-native species described in **Impact BIO-4c** for the proposed Project to less than under baseline conditions.

CEQA Impact Determination

Operation of the Alternative 4 facilities would decrease the potential for introduction of non-native species into the Harbor that could substantially disrupt local biological communities to below baseline conditions. Therefore, no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

3.3.4.3.2.5 Alternative 5 – Landside Terminal Improvements

Under the Landside Terminal Improvements Alternative (Alternative 5), no new developments in Harbor waters would occur (e.g., dredging, filling, and wharf reconstruction/upgrades). Backland infrastructure improvements, however would take place, including the Harry Bridges Boulevard widening and buffer area as well as the railyard relocation. Terminal acreage would increase from 176 acres in 2003 to 190 acres in 2015 and remain at that level through 2038. The increased acreage for backlands would be located entirely within Port boundaries and would be well within industrial areas at the Port. The extent of on-land ground disturbances would be somewhat less than for the proposed Project. All mitigation measures of the proposed Project, except for mitigations relating to dredging and new cranes, would apply. Because no federal action would occur, NEPA would not apply and no impacts would occur.

Impact BIO-1a: Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Construction activities from Alternative 5 would be limited to work on the existing backlands. These land areas provide no breeding or foraging habitat for any of the bird species in Table 3.3-1, except for the peregrine falcon, which could continue to hunt for prey (birds such as rock doves) over the area. This species forages throughout the Harbor area as described for the proposed Project in **Impact BIO-1b**. No prey would be lost due to Alternative 5 construction activities, only a small amount of foraging area would be temporarily affected, and the falcons could use areas away from the Alternative 5 backlands site during construction. No known peregrine falcon nesting areas (Vincent Thomas and Schuyler F. Heim bridges) would be affected due to distance from the Alternative 5 activities. The Vincent Thomas Bridge is over 0.5 mile (0.8 km) from Berth 147 and over 1.2 miles (1.9 km) from Northwest Slip, and the Schuyler R. Heim Bridge is over two miles (3.2 km) from the West Basin. Several of the species (e.g., double-crested cormorant, California gull, and California brown pelican) may use on-shore structures for resting at times, as described in **Impact BIO-1a** for the proposed Project, but other resting areas are available in the West Basin and throughout the Harbor. Thus, none of these species would be adversely affected by Alternative 5 construction activities. No critical habitat for any federally-listed species is present in the Alternative 5 area to be affected by construction.

The USACE has made a no effect determination for federally-listed species in accordance with requirements of Section 7 of the ESA.

CEQA Impact Determination

As described in **Impact BIO-1a** for the proposed Project, construction activities on land would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and impacts would be less than significant under CEQA. No impacts to marine mammals would occur because there would be no in-water work.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Construction activities would not occur in Harbor waters in Alternative 5, and no EFH would be affected. Construction activities on land (including the Harry Bridges Boulevard widening and buffer area and railyard relocation) would have no direct effects on EFH, which is located in the water. Runoff of sediments and contaminants from such construction, however, could enter Harbor waters. As discussed in Section 3.13, implementation of sediment control measures (e.g., sediment barriers and sedimentation basins) and construction BMPs, would minimize such runoff.

Natural Habitat or Plant Community

No marine natural habitats, plant communities (e.g., kelp or eelgrass beds), wetlands, or mudflats are present at or near the Alternative 5 site, and no construction would occur in Harbor waters. The least tern nesting site on Pier 400 SEA would not be affected by construction due to distance from the Alternative 5 site (more than three miles, 4.8 km).

CEQA Impact Determination

Construction would cause no reduction or alteration of EFH, resulting in no impacts under CEQA. Runoff of sediments and contaminants during storm events would not substantially alter EFH because runoff from backland construction activities would be controlled as described in Section 3.13 through BMPs and control measures. No SEAs, kelp beds, eelgrass beds, mudflats, or wetlands would be affected by construction activities because none are present at or near the Alternative 5 site, resulting in no impacts.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH, and no residual impacts would occur for SEAS, natural habitats, special aquatic sites, or plant communities, including wetlands.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction).

Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.

Terminal construction from Alternative 5 would not affect wildlife movement or migration corridors, the same as described for the proposed Project (**Impact BIO-3a**).

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by construction activities, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4a: Construction activities would not substantially disrupt local biological communities.

No construction would occur in Harbor waters, resulting in no direct effects on marine habitats and species. Effects of construction on existing backlands, would be the same for Alternative 5 as described for the proposed Project (**Impact BIO-4a**), including runoff of pollutants and accidents.

CEQA Impact Determination

Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described above, and impacts would, therefore, be less than significant. Runoff of pollutants from backland construction activities would not substantially disrupt biological communities in the West Basin and would have only localized, short-term, less than significant impacts on marine organisms in the immediate vicinity of drain outlets due to implementation of runoff control measures that are part of Alternative 5 (e.g., project-specific SWPPP and BMPs such as sediment barriers and sedimentation basins – see Section 3.13.4.3 for a list of measures). Accidental spills from equipment during dredging would not substantially disrupt local biological communities because they would be small, contained, cleaned up immediately, and affect only a few common marine organisms, and thus would have localized, less than significant impacts. Accidental spills during construction on land would not reach Harbor waters due to the implementation of BMPs, and thus would have no impacts on marine communities. No notice to proceed will be issued without approval of the specific SWPPP and BMPs.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-5: No permanent loss of marine habitat would occur.

No fill would be placed in the Northwest Slip, and no other marine habitat would be lost due to construction of Alternative 5, as compared to the 9.5-acre (3.9-ha) loss of marine habitat for the proposed Project.

CEQA Impact Determination

No permanent loss of marine habitat would occur, resulting in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-1b: Operations would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.

Operation of new and upgraded on-shore terminal facilities in the West Basin would not adversely affect any of the state- or federally-listed, or special concern bird species listed in Table 3.3-1. Those species that currently use the area for foraging or resting could continue to do so because Alternative 5 would not appreciably change the industrial activities in the West Basin or cause a loss of habitat for those species. Operation of the backland facilities would not measurably change the numbers or species of common birds in that area and, thus, would not affect peregrine falcon foraging. Perching locations for birds such as the California brown pelican would still be available as described for the proposed Project.

Operation of the Omni Terminal would result in 163 fewer vessels per year than the CEQA baseline conditions and 167 less than the No Federal Action/NEPA Baseline (251 less than the proposed Project), and this would have no adverse effects on marine mammals compared to the baseline.

CEQA Impact Determination

Operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and impacts would be less than significant under CEQA. Vessel traffic would have no impacts on marine mammals because the amount of traffic would be less than the baseline. No impacts to critical habitat would occur because no critical habitat is present.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Essential Fish Habitat

Alternative 5 would have 251 less vessels per year than the proposed Project, 163 less than the CEQA baseline, and 167 less than the No Federal Action/NEPA Baseline. The reduced number of vessels per year during operations, compared to the proposed Project and the baselines, would eliminate impacts to EFH described in **Impact BIO-2b**. Operation of Alternative 5 facilities on land, including the buffer area and new railyard, would not affect EFH because none is present on land. Runoff from the new facilities would not substantially reduce or alter EFH in Harbor waters because water quality standards for protection of marine life would not be exceeded (see Section 3.13).

Natural Habitat or Plant Community

No natural habitats or plant communities, SEAs, or special aquatic sites are present at or near the Alternative 5 site. Those in the Outer Harbor are more than three miles

(4.8 km) from the site, and none are in the vessel transit route through the Harbor to the West Basin. Thus, project operations would not affect any of these habitats or plant communities.

CEQA Impact Determination

Impacts of operations to EFH would be less than significant as described in **Impact BIO-2b** for the proposed Project because no EFH would be substantially reduced or altered. No impacts would occur to natural habitats, special aquatic sites, or plant communities because none of these habitats are present near the site or vessel traffic lanes to the Alternative 5 berths.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant for EFH. No residual impacts would occur for SEAs, natural habitats, special aquatic sites, and plant communities.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-3b: Operations would not interfere with wildlife movement/ migration corridors.

Terminal operations would not affect wildlife movement or migration corridors as described for the proposed Project (**Impact BIO-3b**).

CEQA Impact Determination

No wildlife movement or migration corridors would be affected by operations, and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO- 4b: Operations of the Alternative 5 facilities would not substantially disrupt local biological communities.

Fewer (251 per year) vessels would call at the terminal than at the proposed Project berths, and this would result in proportionately less underwater noise. The number of vessels for Alternative 5 would also be less than either the CEQA or the No Federal Action/NEPA Baseline. Vessel traffic at the existing wharves would have minimal direct effects on marine organisms as a result of propeller wash (USACE and LAHD 1992). Turbidity from the propeller wash would form a small plume behind each vessel that would dissipate rapidly as described for dredging in **Impact BIO-4a**. Runoff of pollutants from terminal operation would be the same as for the proposed Project from existing lands. Four fewer new lights would be installed than for the proposed Project with the same minimal effects on marine organisms and terrestrial wildlife.

CEQA Impact Determination

Operation of the Alternative 5 facilities would not substantially disrupt West Basin and Harbor biological communities on land or in the water through runoff of contaminants, vessel traffic, and new lighting. Impacts would, therefore, be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Residual impacts would be less than significant.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

Impact BIO-4c: Operation of the new facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could substantially disrupt local biological communities.

Under Alternative 5, the number of vessels using the terminal per year would be less than for the proposed Project and the baseline (CEQA and No Federal Action/NEPA). This would reduce the potential for introduction of non-native species described in **Impact BIO-4c** for the proposed Project to less than under baseline conditions.

CEQA Impact Determination

Operation of the Alternative 5 facilities would decrease the potential for introduction of non-native species into the Harbor that could substantially disrupt local biological communities to below baseline conditions. Therefore, no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

No residual impacts would occur.

NEPA Impact Determination

Under this alternative, no development would occur within the in-water proposed Project area (i.e., no dredging, filling of the Northwest Slip or new wharf construction). Therefore, potential impacts under NEPA are not applicable since there would be no federal action under this alternative.

Mitigation Measures

Due to No Federal Action, mitigation is not applicable. No mitigation measures are necessary under NEPA.

Residual Impacts

With no mitigation required, there would be no residual impacts under NEPA.

3.3.4.3.3 Summary of Impact Determinations

Table 3.3-6 summarizes the CEQA and NEPA impact determinations of the proposed Project and its Alternatives related to Biological Resources, as described in the detailed discussion in Sections 3.3.4.3.1 and 3.3.4.3.2. This table is meant to allow easy comparison between the potential impacts of the proposed Project and its Alternatives with respect to this resource. Identified potential impacts may be based on Federal, State, and City of Los Angeles significance criteria, Port criteria, and the scientific judgment of the report preparers.

For each type of potential impact, the table describes the impact, notes the CEQA and NEPA impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e.: the impact remaining after mitigation). All impacts, whether significant or not, are included in this table. Note that impact descriptions for each of the Alternatives are the same as for the proposed Project, unless otherwise noted.

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources				
Proposed Project	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water and Northwest Slip fill construction, and no impact for existing backland construction	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work and the Northwest Slip fill; no impact for existing backland construction
	BIO-2a: Construction activities would result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Significant impact to EFH from filling of the Northwest Slip; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Significant impact to EFH from filling of the Northwest Slip; no impacts to other natural habitats, special aquatic sites, or plant communities	**BIO-1:** The LAHD shall apply 4.75 credits (= 9.5 Inner Harbor acres) available in the Bolsa Chica or Outer Harbor mitigation banks to compensate for loss of fish and wildlife habitat due to construction of fill in the Northwest Slip of the West Basin. Credit accounting and debiting of credits from either the Bolsa Chica or Outer Harbor mitigation banks shall occur prior to issuance of a Section 10/404 Permit by the USACE. This mitigation measure would fully offset proposed Project impacts to habitat for aquatic species. **BIO-1**	CEQA: No impact after mitigation NEPA: No impact after mitigation
	BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact

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Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Proposed Project (continued)	**BIO-4a:** Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work and the Northwest Slip fill, and no impact for existing backland construction	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work and the Northwest Slip fill, and no impact for backland construction
	BIO-5: Filling in the Northwest Slip would result in a permanent loss of marine habitat.	CEQA: Significant impact NEPA: Significant impact	**BIO-1** **BIO-1**	CEQA: No impact after mitigation NEPA: No impact after mitigation
	BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact for the Northwest Slip fill and in-water facilities; no impact for existing backlands	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact in water and on Northwest Slip fill; no impact for existing backlands
	BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact for EFH; no impact to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact for EFH; ; no impacts to other natural habitats, special aquatic sites, or plant communities	Mitigation not required Mitigation not required	CEQA: Less than significant impact for EFH; no impact for other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact for EFH; no impact for other natural habitats, special aquatic sites, or plant communities
	BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Proposed Project (continued)	**BIO-4b:** Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact for the Northwest Slip and in-water facilities. No impact for facilities on existing land. NEPA: Less than significant impact for the Northwest Slip and in-water facilities. No impact for facilities on existing land.	Mitigation not required Mitigation not required	CEQA: Less than significant impact for the Northwest Slip and in-water facilities. No impact for facilities on existing land. NEPA: Less than significant impact for the Northwest Slip and in-water facilities. No impact for facilities on existing land.
	BIO-4c: Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: Significant impact NEPA: Significant impact	No feasible mitigation is currently available No feasible mitigation is currently available	CEQA: Significant impact NEPA: Significant impact
Alternative 1	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 1 (continued)	**BIO-4a**: Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-5: Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact to EFH; no impact to natural habitats or plant communities NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact to EFH; no impact to natural habitats or plant communities NEPA: Not applicable
	BIO-3b: Operation of Alternative 1 facilities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-4b: Operation of the existing facilities would not substantially disrupt local biological communities.	CEQA: Less than significant NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Les than significant NEPA: Not applicable
	BIO-4c: Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: Significant impact NEPA: Not applicable	No feasible mitigation is currently available Mitigation not required	CEQA: Significant impact NEPA: Not applicable

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 2	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact
	BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities	Mitigation not required Mitigation not required	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities
	BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact
	BIO-4a: Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impact for backland improvements	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impact for backland improvements
	BIO-5: No permanent loss of marine habitat would occur.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 2 (continued)	**BIO-1b:** Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impact for backland operations	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impact for backland operations
	BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities	Mitigation not required Mitigation not required	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities
	BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact
	BIO-4b: Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backland operations	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backland operations
	BIO-4c: Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: Significant impact NEPA: Significant impact	No feasible mitigation is currently available No feasible mitigation is currently available	CEQA: Significant impact NEPA: Significant impact

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 3	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impacts for backlands improvements	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impacts for backlands improvements
	BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities	Mitigation not required Mitigation not required	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities
	BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact
	BIO-4a: Construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impacts for backland construction	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water work; no impacts for backland construction
	BIO-5: No permanent loss of marine habitat would occur.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 3 (continued)	**BIO-1b:** Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backlands operation	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backlands operation
	BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities	Mitigation not required Mitigation not required	CEQA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities NEPA: Less than significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities
	BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact
	BIO-4b: Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backlands operation	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water facilities; no impacts for backlands operation
	BIO-4c: Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: Significant impact NEPA: Significant impact	No feasible mitigation is currently available No feasible mitigation is currently available	CEQA: Significant impact NEPA: Significant impact

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 4	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable
	BIO-3a: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-4a: Construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-5: No permanent loss of marine habitat would occur.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 4 (continued)	**BIO-2b:** Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable
	BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-4b: Operation of the Alternative 4 facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-4c: Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
Alternative 5	**BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-2a: Construction activities would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 5 (continued)	**BIO-3a:** Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-4a: Construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-5: No permanent loss of marine habitat would occur.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-1b: Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable
	BIO-2b: Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	CEQA: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Not applicable
	BIO-3b: Operation of proposed Project facilities would not interfere with wildlife movement/migration corridors	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable
	BIO-4b: Operation of the Alternative 5 facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: Less than significant impact NEPA: Not applicable

Table 3.3-6: Summary Matrix of Potential Impacts and Mitigation Measures for Biological Resources Associated with the Proposed Project and Alternatives (continued)

Alternative	*Environmental Impacts**	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.3 Biological Resources (continued)				
Alternative 5 (continued)	**BIO-4c:** Operation of the new facilities in the West Basin has a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: No impact NEPA: Not applicable	Mitigation not required Mitigation not required	CEQA: No impact NEPA: Not applicable

* Unless otherwise noted, all impact descriptions for each of the Alternatives are the same as those described for the proposed Project

3.3.4.4 Mitigation Monitoring

BIO-2a: Construction activities would result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.	
Mitigation Measure	**BIO-1:** Compensate for loss of marine habitat (EFH) in the West Basin through use of existing mitigation bank credits.
Timing	Prior to or concurrent with proposed Project.
Methodology	LAHD shall reduce the Outer Harbor mitigation bank credits by 5 in accordance with mitigation agreements.
Responsible Parties	LAHD/USACE
Residual Impacts	Not significant after mitigation.
BIO-5: Filling in the Northwest Slip would result in a permanent loss of marine habitat.	
Mitigation Measure	**BIO-1:** Compensate for loss of marine habitat in the West Basin through use of existing mitigation bank credits.
Timing	Prior to or concurrent with proposed Project.
Methodology	LAHD shall reduce the Outer Harbor mitigation bank credits by 4.74 in accordance with mitigation agreements.
Responsible Parties	LAHD/USACE
Residual Impacts	Not significant after mitigation.

3.3.5 Significant Unavoidable Impacts

Introduction of non-native species that substantially disrupt local biological communities would be a significant and unavoidable impact because no feasible mitigation is currently available.