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## Section 3.3 Biological Resources

3 **3.3.1 Introduction**

4 This section identifies the existing conditions of biological resources in the proposed  
5 Project area and addresses potential impacts on those resources that could result from  
6 implementing the proposed Project and alternatives.

7 **3.3.2 Environmental Setting**

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

22 Over the years, the Ports have worked with the state and federal resource agencies to  
23 conduct periodic evaluations of Harbor conditions, which then serve to define baseline  
24 conditions for habitat assessments associated with Port development projects. Based on  
25 these assessments, the resource agencies and the Ports establish appropriate harbor  
26 habitat and habitat mitigation values. The last major assessment, which was conducted in  
27 2000, resulted in modification of the mitigation values in the harbor (LAHD, 2004a).  
28 These modifications were indicative of a gradual increase in habitat value in the harbor  
29 and resulted in an increase in mitigation requirements in the Main Channel from lower  
30 value Inner Harbor habitat to higher value Outer Harbor habitat. While still valuable, the  
31 remainder of the Inner Harbor, including the West Basin area, was identified as having  
32 lower habitat values relative to the deep and shallow waters of the Outer Harbor (see  
33 MEC and Associates, 2002; LAHD, 2004a). In general, marine resource fluctuations  
34 along the California Coast and in the Harbor can occur seasonally and annually based on  
35 general fluctuations in the environment including, but not limited to, amount of rainfall  
36 and El Niño events. However, in general, substantial improvements in habitat quality

1 associated with improved water quality in the Harbor occurred in the period between the  
2 1970s and mid 1980s. Further improvements in marine resources have occurred since  
3 that time, though at a slower pace than in the previous 10-year period (MEC and  
4 Associates, 2002). The types of habitats (shallow and deep pelagic, benthic, riprap, and  
5 piling in the Inner Harbor and Outer Harbor) and the species associated with them have  
6 remained fairly predictable as described for each habitat below. Perhaps the most  
7 significant change has been the expansion of eelgrass habitat in the shallow soft-bottom  
8 habitat of the Outer Harbor (MEC and Associates, 2002), and in the Inner Harbor north  
9 of Pier 300 (MBC, 2005).

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

15 Beneficial uses in the Inner Harbor include marine habitat as defined in the Basin Plan  
16 (RWQCB, 1994). Biological resources baseline studies (MEC, 1988; MEC and  
17 Associates, 2002), as well as long-term studies at two Inner Harbor generating stations,  
18 the Harbor and Long Beach generating stations (MBC, 2006a and 2006b), have shown no  
19 depreciation in the quantity or quality of marine resources even though the Harbor has  
20 experienced increased commercial development that includes new facilities and increased  
21 vessel traffic.

### 22 3.3.2.1 Terrestrial Habitats

23 Upland areas where backland improvements would occur have been previously  
24 developed or are vacant Port lands that provide limited terrestrial habitat for wildlife and  
25 plants. Vegetation on uplands in the proposed Project area is primarily landscape  
26 plantings and weedy species in undeveloped areas. Cover is sparse where such plants  
27 occur, and most unpaved areas have no vegetation. No natural or sensitive plant  
28 communities are present. Wildlife use of the proposed Project area is limited primarily to  
29 feral cats, rats and mice, and birds associated with urban areas such as gulls (*Larus* spp.),  
30 American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), rock dove  
31 (*Columba livia*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer*  
32 *domesticus*), European starling (*Sturnus vulgaris*), Brewer's blackbird (*Euphagus*  
33 *cyanocephalus*), and northern mockingbird (*Mimus polyglottos*).

### 34 3.3.2.2 Benthic Environments

#### 35 3.3.2.2.1 Soft-Bottom Habitats

36 Organisms that live on and in the bottom sediments act to modify the character of the  
37 bottom. Those that live in the sediments, primarily invertebrate species, are referred to as  
38 infauna, while those living on the sediment surface are referred to as epifauna. These  
39 species are important as a food source for fish, crabs, and other benthic organisms. Since  
40 the 1950s, improvements in water quality have aided the establishment of diverse  
41 assemblages of benthic animals in previously disturbed Inner Harbor and channel areas  
42 (USACE and LAHD, 1980 and 1984). Data from the 1970s show that the polychaete  
43 *Tharyx parvus* accounted for most of the benthic organisms in soft-bottom samples  
44 (Soule and Oguri, 1976; USACE and LAHD, 1980). An assessment of dominant species

1 in the Harbor indicates a gradient of increasing environmental stress (enrichment/  
2 contamination) from the Outer to Inner Harbor and from basins to slips (MEC and  
3 Associates, 2002). Over time, there has been an increasing tendency of movement of  
4 healthy Outer Harbor assemblages up the main channel and improved benthic indicators  
5 in the Inner Harbor areas (MEC, 2002; MBC, 2006a). Between 1990 and 2003, more  
6 than 350 infaunal invertebrate species have been collected during routine monitoring in  
7 the West Basin area, although only 20 species have contributed 1 percent or more to the  
8 total abundance in the area (MBC, 2006a). The soft-bottom benthos of the West Basin is  
9 generally dominated by polychaete annelids (worms), with crustaceans and mollusks  
10 moderately abundant and other taxa less abundant. Polychaetes were still numerically  
11 dominant in the West Basin area and remain the most speciose (having the greatest  
12 number of species) taxonomic group throughout the West Basin (MBC, 2006a).  
13 However, in 2003, the Asian clam (*Theora lubrica*), a mollusk, was the most abundant  
14 single species throughout the West Basin area (MBC, 2003); however, its population  
15 subsequently crashed, and it was less than 1 percent of the infauna in 2006 (MBC, 2006a).  
16 The abundance of non-native species such as the Asian clam has increased throughout the  
17 Los Angeles and Long Beach Harbor complex since the 1970s, and at least 6 of 25  
18 infaunal species known to have been introduced into the Harbor are found in the West  
19 Basin (MEC and Associates, 2002).

20 In 2000, the biomass of invertebrates in sediments of the West Basin averaged 21 grams  
21 per square meter ( $\text{g/m}^2$ ) in the West Basin (near Berth 137) (MEC and Associates, 2002).  
22 Densities of 9,853 individuals/ $\text{m}^2$  and 29  $\text{g/m}^2$  were found in the same area in 2006  
23 (MBC, 2006a). The species composition suggests low to moderate organic enrichment in  
24 the West Basin (MEC and Associates, 2002). Annual and seasonal variations in density  
25 of infaunal organisms are to be expected as a result of variations in oceanographic  
26 (chemical and physical) conditions over time and human activities (USACE and LAHD,  
27 1992).

28 Epifaunal invertebrates associated with, but not living in, soft-bottom sediments are  
29 generally larger than infaunal organisms and are also referred to as macroinvertebrates.  
30 These species are most commonly caught during trawl sampling. More than  
31 57 macroinvertebrate species have been taken during regular trawl monitoring in the  
32 West Basin since 1978 (MBC, 2006a). In that program, species richness (abundance),  
33 however, has varied considerably among yearly and seasonal samples, ranging from a  
34 high of 18 species collected by trawl in August 1988 to a low of 2 individuals in summer  
35 and 5 individuals collected in winter 1991 (MBC, 1991 and 2006a). Abundance has  
36 varied in the 2000 surveys of the port; the number of individuals per trawl ranged from  
37 28 in August 2000 to 8 in November 2000 (MEC and Associates, 2002). The annual  
38 mean was 20 individuals per trawl. At the Outer Los Angeles Harbor station, the annual  
39 mean was 16 individuals per trawl and ranged from 7 to 28 individuals per trawl.  
40 Surveys in the Outer Harbor in 1986 and 1987 collected a mean of 10 individuals per  
41 trawl (adjusted for smaller trawl size) in three Outer Harbor locations (MEC, 1988). The  
42 number of individuals per trawl, however, varied considerably among the nine sampling  
43 dates (0 to 71 individuals per trawl). Surveys in the Outer Harbor in 1996 through 1999  
44 by the City of Los Angeles indicate that the abundance of invertebrates collected by  
45 trawl decreased considerably during the 1997-1998 El Niño and recovered after that  
46 (MEC and Associates, 2002). These data indicate that epifaunal invertebrate  
47 abundance can vary within a year but, overall, has not decreased from 1987 to 2000.  
48 Twelve macroinvertebrate species were found living on the bottom of the West Basin in  
49 trawl surveys conducted in 2000 (MEC and Associates, 2002). In the West Basin, the  
50 epifaunal macroinvertebrate assemblage is dominated by arthropod species, particularly

1 black-spotted shrimp (*Crangon nigromaculata*) and tuberculate pear crab (*Pyromaia*  
2 *tuberculata*), the two most abundant species taken during monitoring sampling (MBC,  
3 2006a). Nudibranchs and other gastropod mollusks, sea stars, and sea cucumbers also are  
4 taken occasionally in the area (MBC, 2006a). Other commonly collected epifaunal  
5 invertebrates include Xantus' swimming crab (*Portunus xantusii*), New Zealand bubble  
6 snail (*Philine auriformis*), and the spotwrist hermit crab (*Pagurus spilocarpus*) (MEC and  
7 Associates, 2002). Fish associated with soft bottoms are discussed in Section 3.3.2.3,  
8 Water Column Habitats.

### 9 3.3.2.2.2 Hard Substrates

10 Organisms on hard substrates in the Harbor show vertical zonation similar to that on  
11 rocky shores. Species present include barnacles, mussels, polychaete worms, limpets,  
12 anemones, and algae (MEC, 1988; LAHD, 1991b). The Inner Harbor was dominated by  
13 sparse coverage of stress-tolerant algal species such as *Ulva* spp. and *Enteromorpha* spp.  
14 (USACE and LAHD, 1984). Rock riprap at Berths 121-126 supported 23 species of  
15 crustaceans, polychaete worms, mollusks, and algae with a biomass of 41 g/m<sup>2</sup> (LAHD,  
16 1981). The intertidal zone was dominated by barnacles (*Balanus amphitrite*) with a few  
17 bay mussels (*Mytilus edulis*) and slipper limpets (*Crepidula onyx*). Organisms in the  
18 subtidal zone included sea anemones, slipper limpets, gorgonian coral (*Muricea* sp.),  
19 polychaete worms, and a solitary tunicate (*Ciona intestinalis*). Wood and concrete  
20 pilings surveyed in 1981 supported 30 species with a biomass of 121 g/m<sup>2</sup> on the  
21 concrete piles and 277 g/m<sup>2</sup> on the wood piles (LAHD, 1981). Surveys of concrete and  
22 rock at Berth 136, under a wharf, in 2000 found the non-native Pacific oyster  
23 (*Crassostrea gigas*) to be the only species in the upper intertidal zone and the dominant  
24 species in the lower intertidal zone, where coralline algae were also present (MEC and  
25 Associates, 2002). The Pacific oyster is new to the Harbor since the 1986-87 surveys.  
26 It is from Asia and was introduced into northern California for commercial purposes, but  
27 the source in Los Angeles Harbor is unknown. The subtidal zone also supported Pacific  
28 oyster as well as sponges, a stalked tunicate (*Styela* sp.), and crustaceans. A total of  
29 43 invertebrate species was found, including 5 non-native species. The mean biomass of  
30 organisms was 2,413 g/m<sup>2</sup> in the upper intertidal, 3,832 g/m<sup>2</sup> in the lower intertidal, and  
31 2,497 g/m<sup>2</sup> in the upper subtidal. The surveys from 2000 noted that the bay mussel had  
32 been misidentified in previous surveys and is actually the non-native Mediterranean  
33 mussel (*M. galloprovincialis*). Non-native sargassum (*Sargassum muticum*) was present  
34 at the entrance to the West Basin. Fish associated with hard substrates are discussed in  
35 Section 3.3.2.3, Water Column Habitats.

### 36 3.3.2.3 Water Column Habitats

37 Organisms in the water column include plankton (small floating animals and plants) and  
38 fish. Phytoplankton (plant) communities tend to be less diverse in the Inner Harbor than  
39 in the Outer Harbor, but productivity can be higher in the Inner Harbor due to warmer  
40 water temperatures, nutrient inputs, and reduced circulation (Allan Hancock Foundation,  
41 1980). Inner Harbor zooplankton (animal) communities are dominated by copepods that  
42 have seasonal peaks and declines. Ichthyoplankton (fish eggs and larvae) species and  
43 abundances vary on a spatial and temporal basis in the Harbor. Larvae of northern  
44 anchovy (*Engraulis mordax*), white croaker (*Genyonemus lineatus*), blenny  
45 (*Hypsoblennius* spp.), arrow goby (*Clevelandia ios*), and other members of the family  
46 *Gobiidae* (gobies) have been found to be abundant. Recent surveys in the West Basin  
47 found the most abundant larvae to be unidentified gobies, bay goby (*Lepidogobius*

1 *lepidus*), northern anchovy, queenfish (*Seriphus politus*), blenny, white croaker, and  
2 yellowfin goby (*Acanthogobius flavimanus*) (MEC and Associates, 2002). The latter is a  
3 non-native species. Fish eggs were found from unidentified fish, croaker, and speckled  
4 sanddab (*Citharichthys stigmaeus*). The species composition and abundance of  
5 ichthyoplankton in the Harbor has been shown to be similar to that of the juvenile and  
6 adult fish community (Brewer, 1983), suggesting that the Harbor is a nursery for nearly  
7 all of the fish species found there as adults (MEC, 1988 and MBC, 1984).

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

21 Species richness and diversity in the Harbor complex tend to decrease along a gradient  
22 from the Outer Harbor to the Inner Harbor (USACE and LAHD, 1984). The fish  
23 community in the Inner Harbor is dominated by a few species that comprise a very high  
24 percentage of the total catch. While 39 species have been collected during regular  
25 monitoring in the West Basin since 1978, two species, white croaker and northern  
26 anchovy, account for over 90 percent of all individuals collected during the surveys  
27 (MBC, 2006). Other common species include queenfish, bay goby, white seaperch, and  
28 shiner perch. Fish surveys in 2000 using Lampara nets and otter trawls found 28 species  
29 in the West Basin (MEC and Associates, 2002). The dominant species (in numbers of  
30 individuals) were northern anchovy, topsmelt (*Atherinops affinis*), white croaker,  
31 queenfish, and specklefin midshipman (*Porichthys myriaster*). The mean catch per haul  
32 was 234 fish (3.1 kg) for the lampara net and 179 fish (1.3 kg) for the otter trawl. The  
33 number of fish collected varied by season with the lowest in winter and the highest in  
34 summer.

### 35 3.3.2.4 Water Birds

36 Numerous water-associated birds use the Harbor as residents and as seasonal visitors.  
37 Recent surveys found 69 species in the Harbor that depend on marine habitats and  
38 another 30 species that do not (MEC and Associates, 2002). Gulls, upland birds, and  
39 waterfowl were the dominant groups in the West Basin, excluding the Southwest Slip.  
40 All other types of birds (large shorebirds, wading/marsh birds, and raptors) were also  
41 represented. The most abundant species were California gull (*Larus californicus*),  
42 western gull (*L. occidentalis*), Heermann's gull (*L. heermanni*), ring-billed gull  
43 (*L. delawarensis*), rock dove, double-crested cormorant (*Phalacrocorax auritus*), and  
44 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 also have been observed in the West Basin area (as shown in 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; three 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 of the Harbor and 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.
Common loon	–	SC	Infrequent winter visitor to Harbor; 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 present only in the Harbor area during its breeding season, April to September, while the brown pelican is present throughout the year. 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 known to use the Harbor (as shown in 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 listed by the state as endangered, are known to nest in the Harbor area (Vincent Thomas and Schuyler F. Heim Bridges) (Keane Biological Consulting, 1999a and 2003) and, thus, periodically might 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 marine

1 species that are known to use the Harbor for at least part of the year. The elegant tern  
2 began nesting on Pier 400 in 1998 and 1999, and 10,170 nests were observed in 2004  
3 (Keane Biological Consulting, 2005a). The black skimmer (*Rynchops niger*) also has  
4 nested on Pier 400. The California gull, common loon, and double-crested cormorant do  
5 not nest in the Harbor.

6 Sporadic sightings of sea turtles have been observed in the Ports of Los Angeles or  
7 Long Beach over the years; however, none have been observed during more than 20  
8 years of biological surveys (MEC, 1988; MEC and Associates, 2002; Keane Biological  
9 Consulting, 2007). Because several green sea turtles reportedly have been observed in  
10 nearby Alamitos Bay and in the San Gabriel River (Dedina, 2004), it is possible that sea  
11 turtles may be rare but occasional visitors to the Outer Harbor areas in the Ports.

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

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

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

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

31 All marine mammals are protected under the Marine Mammal Protection Act (MMPA) of  
32 1972, and some are protected by the Endangered Species Act (ESA) of 1973. These  
33 species may forage during brief visits but do not breed in Los Angeles Harbor. The only  
34 marine mammal known to occasionally use the West Basin is the California sea lion  
35 (*Zalophus californianus*), and only one was observed during the 2000 surveys (MEC and  
36 Associates, 2002). This species was frequently observed in the Main Channel. Harbor  
37 seals (*Phoca vitulina*) might enter the Inner Harbor but none were observed there in the  
38 2000 surveys (MEC and Associates, 2002). Both species use the Outer Harbor. Outside  
39 the breakwater, a variety of marine mammals use nearshore waters. These include the  
40 gray whale (*Eshrichtius robustus*), which migrates from the Bering Sea to Mexico and  
41 back each year. This and other species of baleen whales generally are found as single  
42 individuals or in pods of a few individuals. Toothed whales, and particularly dolphins,  
43 can be found in larger groups up to a thousand or more (Leatherwood and Reeves, 1983).  
44 Several species of dolphin and porpoise are commonly found in coastal areas near  
45 Los Angeles including the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*),  
46 Risso's dolphin (*Grampus griseus*), Dall's porpoise (*Phocoenoides dalli*), bottlenose  
47 dolphin (*Tursiops truncatus*), northern right-whale dolphin (*Lissodelphis borealis*), and

1 common dolphin (*Delphinus delphis*), with the common dolphin the most abundant  
2 (Forney et al., 1995).

### 3 **Vessel Collisions with Marine Mammals and Sea Turtles**

4 Ship strikes involving marine mammals and sea turtles, although uncommon, have been  
5 documented for the following listed species in the eastern North Pacific: blue whale, fin  
6 whale, humpback whale, sperm whale, southern sea otter, loggerhead sea turtle, green sea  
7 turtle, olive ridley sea turtle, and leatherback sea turtle (NOAA Fisheries and 19 USFWS  
8 1998a, 1998b, 1998c, 1998d; Stinson 1984; Carretta et al., 2001). Ship strikes have also  
9 been documented involving gray, minke, and killer whales. The blue whale, fin whale,  
10 humpback whale, sperm whale, gray whale, and killer whale are all listed as endangered  
11 under the ESA; however, the Eastern Pacific gray whale population was delisted in 1994.  
12 Determining the cause of death for marine mammals and sea turtles that wash ashore  
13 dead or are found adrift is not always possible, nor is it always possible to determine  
14 whether propeller slashes were inflicted before or after death. In the case of a sea otter  
15 for example, wounds originally thought to represent propeller slashes were determined to  
16 have been inflicted by great white sharks (Ames and Morejohn, 1980). In general, dead  
17 specimens of marine mammals and sea turtles showing injuries consistent with vessel  
18 strikes are not common.

### 19 **Whale Strikes**

20 While vessel collisions with all marine mammals and sea turtles have been reported, the  
21 majority of incidences involve whales. The National Marine Fisheries Service (NMFS)  
22 has records of vessel strikes with whales in U.S. coastal waters for 1982 through 2007  
23 (NMFS, 2007c). Of the recorded strikes in the National Oceanic and Atmospheric  
24 Administration (NOAA) database, most of the identified species were gray whales  
25 (42 percent) and blue whales (15 percent) with a few fin whales and humpback whales.  
26 The number of strikes per year ranged from none to seven and averaged 2.6, but the  
27 actual number is likely to be greater because not all strikes are reported. The type of  
28 vessel involved often was not known but does include freighters/container vessels going  
29 to the Los Angeles and Long Beach Harbors.

30 In Southern California, potential strikes to blue whales are of the most concern due to the  
31 fact that the migration patterns of blue whales north and south along the California coast  
32 at times run perpendicular to the established shipping channels in and out of California  
33 ports and that blue whale population numbers are low relative to historical numbers.  
34 Blue whales normally pass through the Santa Barbara Channel en route from breeding  
35 grounds in Mexico to feeding grounds further north. Blue whales were historically a  
36 target of commercial whaling activities worldwide but are now protected from whaling.  
37 In the North Pacific, the pre-whaling population is estimated to have been approximately  
38 4,900 blue whales; the current population estimate is approximately 3,300 blue whales  
39 (NMFS, 2008). Along the California coast, blue whale abundance has increased over the  
40 past two decades (Calambokidis et al., 1990; Barlow, 1994 and Calambokidis, 1995).  
41 However, the increase is too large to be accounted for by population growth alone and is  
42 more likely attributed to a shift in distribution. Incidental ship strikes and fisheries  
43 interactions are listed by NMFS as the primary threats to the California population.  
44 According to NMFS records, the average number of blue whale mortalities in California  
45 attributed to ship strikes was 0.2 per year from 1991 to 1995 and from 1998 to 2002.  
46 However, in September 2007, a large number (three) blue whales were killed by ship  
47 strikes. These mortalities were confirmed to be caused by ship strikes in the Santa

1 Barbara Channel but declared to be part of an “Unusual Mortality Event” (Working  
2 Group on Marine Mammal Unusual Mortality Events, 2007). The cause of the unusual  
3 mortality event is undeclared at this time but may have been associated with biotoxins  
4 from harmful algal blooms along the Southern California Coast.

5 Vessel speed seems to influence whale/ship collision incidences. The Jensen and Silber  
6 whale-strike database (Jensen and Silber, 2003) reports that there are 134 cases of known  
7 vessel strikes in U.S. coastal waters. Of these 134 cases, 14.9 percent (20 cases) involved  
8 container/cargo ships/freighters, and 6.0 percent (8 cases) involved tankers. The  
9 remaining incidents involved Navy vessels (17.1 percent, or 23 cases), whale-watching  
10 vessels (14.2 percent, or 19 cases), cruise ships/liners (12.7 percent, or 17 cases), ferries  
11 (11.9 percent, or 16), Coast Guard vessels (6.7 percent, or 9 cases), recreational vessels  
12 (5.2 percent, or 6 cases), and fishing vessels (3.0 percent, or 4 cases). One collision  
13 (0.75 percent) was reported from each of the following: dredge boat, research vessel,  
14 pilot boat, and whaling catcher boat. Of the 134 cases, vessel speed was known for  
15 58 cases. Of these 58 cases, most vessels were traveling in the ranges of 13 to 15 knots,  
16 followed by speed ranges of 16 to 18 knots and 22 to 24 knots.

17 According to a report from NOAA, which was based on information in the Jensen and  
18 Silber (2003) whale-strike database and on Laist et al. (2001), the majority of vessel  
19 collisions with whales occurred at speeds between 13 and 15 knots (NOAA, 2008).  
20 Specifically, NOAA recommends:

21 *Overall, most ship strikes of large whale species occurred when ships were*  
22 *traveling at speeds of 10 knots or greater. Only 12.3% of the ship strikes in*  
23 *the Jensen and Silber database occurred when vessels were traveling at*  
24 *speeds of 10 knots or less. While vessel speed may not be the only factor in*  
25 *ship/whale collisions, data indicate that collisions are more likely to occur*  
26 *when ships are traveling at speeds of 14 knots or greater. This strongly*  
27 *suggests that ships going slower than 14 knots are less likely to collide with*  
28 *large whales. Therefore, NOAA Fisheries recommends that speed*  
29 *restrictions in the range of 10-13 knots be used, where appropriate, feasible,*  
30 *and effective, in areas where reduced speed is likely to reduce the risk of ship*  
31 *strikes and facilitate whale avoidance.*

### 32 3.3.2.5.1 California Least Tern

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

42 The least tern has been nesting during the summer on Terminal Island (including Pier 300)  
43 since at least 1974 (Keane Biological Consulting, 1999a). In 1979, the Los Angeles  
44 Harbor Department began providing nesting habitat for the species and entered into a  
45 Memorandum of Agreement (MOA) with the U.S. Fish and Wildlife Service (USFWS),  
46 USACE, and California Department of Fish and Game (CDFG) for management of a  
47 15-acre least tern nesting site in 1984. This MOA sets forth the responsibilities of the

1 signing parties for management of the designated least tern nesting site in the Harbor, and  
2 it is renewed every 3 to 5 years. A new MOA was approved by the Board of Harbor  
3 Commissioners in June 2006. The MOA also allows the designated nesting site to be  
4 relocated under specific conditions, and the location of this nesting site has changed over  
5 time due to Port development activities and is now on the southern tip of Pier 400 (Keane  
6 Biological Consulting, 2003). In 1997, the only successful nesting occurred on the newly  
7 constructed Pier 400. In 1998, the Pier 300 nesting site was decommissioned (Keane  
8 Biological Consulting, 1999a). Least tern nesting in the Harbor has been monitored  
9 annually since 1973. The number of nests in the Harbor varied from 0 to 134 between  
10 1973 and 1994. The number steadily increased from 16 in 1995 to 565 in 2000, with  
11 decreases in 2001 and 2002 and an increase to 1,071 in 2004 and 1,322 in 2005 (Keane  
12 Biological Consulting, 2005b). In 2006, there were 907 nests on Pier 400 and 710 nests  
13 were reported in 2007. No nesting has been reported on uplands in the West Basin  
14 Project area.

15 A comparison of the Los Angeles Harbor 1998 nesting success with that from other areas  
16 in Los Angeles and Orange counties shows that the Harbor produced 19 percent of the  
17 total number of fledglings and had the highest number of fledglings per pair (Keane  
18 Biological Consulting, 1999a). In 2003, the Harbor produced 55 percent of the total  
19 number of fledglings in Los Angeles and Orange counties and 25 percent of the statewide  
20 fledglings (Keane Biological Consulting, 2003). In 2005, these numbers increased to  
21 71.4 percent of the total fledglings in Los Angeles and Orange counties and 45 percent of  
22 the statewide number of fledglings (Keane Biological Consulting, 2005b). In 2006 Pier  
23 400 nesting represented 44 percent of the statewide number of fledglings and 21 percent of  
24 the statewide fledglings in 2007 (Keane Biological Consulting, 2007).

25 Several foraging studies have been conducted in the Harbor. The 1982, 1984, and 1985  
26 surveys found that least tern foraged over shallow water (generally less than 20 feet deep)  
27 in the Outer Harbor, especially near the nesting site, but not in the Inner Harbor (Keane  
28 Biological Consulting, 1997). Surveys using radio-telemetry and observations in 1986  
29 and 1987 showed that the least terns foraged inside and outside the Harbor during egg  
30 incubation. More foraging occurred near the breakwater than adjacent to Terminal Island  
31 during incubation, but this reversed after the eggs hatched (Keane Biological Consulting,  
32 1997). In the 1994-1996 surveys, least terns foraged around the east and south sides of  
33 Pier 300 with greater use of the Seaplane Anchorage in 1996 than in the other 2 years.  
34 After the south side of Pier 300 was dredged to deep water, use by the terns declined.  
35 The Cabrillo Beach and Cabrillo saltmarsh areas were used to varying degrees (Keane  
36 Biological Consulting, 1997). A study in 1997 and 1998 found that the least terns used  
37 the West Basin of Long Beach Harbor as well as the Pier 300 Shallow Water Habitat,  
38 Seaplane Anchorage, and the Gap (the area between Naval Mole and Pier 400  
39 Transportation Corridor). The foraging frequency (dives per acre) varied among  
40 locations and between years. This variation may be related to changes in availability of  
41 prey and distance from nest sites (Keane Biological Consulting, 1998). These studies  
42 have shown that Outer Harbor shallow water areas (less than 20 feet deep) provide  
43 important foraging areas for the least tern. Three least terns were observed in the  
44 Southwest Slip in June 2000 in an area that was subsequently filled (MEC and Associates,  
45 2002). The only shallow water in the West Basin is what remains of the Southwest Slip.  
46 Regular foraging in this area, however, has not been observed. The Southwest Slip is  
47 about 3 miles from the current nesting location on Pier 400 and over 1 mile from the  
48 areas commonly used for foraging. In summary, the foraging studies show that the least  
49 terns forage primarily in the Outer Harbor and not in the channels, basins, and slips of the

1 Inner Harbor. No foraging by this species has been reported in the West Basin outside  
2 the Southwest Slip.

3 Foraging by least terns at the Pier 300 Shallow Water Habitat has increased even more  
4 than the number of nests in recent years. This suggests that least tern prey has become  
5 more abundant over the period of 1994 to 1998. Thus, the increase in nesting may be  
6 related to increases in both the amount of suitable nesting habitat and prey. Foraging by  
7 least terns in 1998 also occurred in the shallow waters of the (incomplete) Pier 400  
8 Phase II fill area adjacent to the north of the Phase I area (Keane Biological Consulting,  
9 1999a). In 1999, least tern foraging was again very high in the Pier 300 Shallow Water  
10 Habitat with much of the activity in the waters immediately adjacent to Pier 300 (Keane  
11 Biological Consulting, 1999b). Foraging was also very high there in 2001 and 2003, but  
12 in 2002, the highest foraging was on the north side of Pier 400 adjacent to the causeway  
13 (west side) and near Cabrillo Beach (Keane Biological Consulting and Aspen  
14 Environmental Group, 2004). Foraging showed three peaks in 2003: early to mid-May  
15 (egg-formation period), mid-June (chick hatching period), and early to mid-July (fledging  
16 period). In 2003, foraging outside the Harbor increased in relation to that of the previous  
17 2 years.

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

### 27 **3.3.2.5.2 California Brown Pelican**

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

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

42 Brown pelicans use the Harbor year round, but their abundance is greatest in the summer  
43 when postbreeding birds from Mexico arrive. The highest numbers are present between  
44 early July and early November, when several thousand can be present (MBC, 1984).  
45 Pelicans use all parts of the Harbor, but they prefer to roost and rest on the Harbor  
46 breakwater dikes, particularly the Middle Breakwater (MBC, 1984; MEC, 1988; MEC  
47 and Associates, 2002). However, the Inner Harbor, which includes the West Basin, is not

1 considered an important area for California Brown Pelican foraging based on survey  
2 information. They forage over open waters for fish such as the northern anchovy, and  
3 accounted for 9.5 percent of the total number of birds observed in the Harbor during the  
4 2000-2001 surveys. Several were observed in the West Basin in July through September  
5 2000 with few to none the remainder of the year (MEC and Associates, 2002). However,  
6 the Inner Harbor, which includes the West Basin, is not considered an important area for  
7 California brown pelican foraging based on survey information. The brown pelican does  
8 not breed in the Harbor area.

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

### 12 3.3.2.6 Wildlife Movement Corridors

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

### 17 3.3.2.7 Invasive Species

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

34 The aquarium strain of *Caulerpa* (*Caulerpa taxifolia*) is an invasive alga that has covered  
35 more than 30,000 acres in the Mediterranean Sea and is listed as a federal noxious weed  
36 under the Plant Protection Act. This species has never been identified in San Pedro Bay  
37 but is of particular concern because it is a fast-growing green alga native to tropical waters  
38 where it typically grows in isolated patches. However, in areas outside its native range,  
39 *Caulerpa* grows rapidly and quickly overtakes native species. In the Mediterranean,  
40 *Caulerpa* has caused ecological devastation by overwhelming local seaweed species and  
41 altering fish distributions. Its rampant growth also has resulted in huge economic losses  
42 by harming tourism, pleasure boating, fishing, and the diving industry. Species of  
43 *Caulerpa* are used in the aquarium trade and can enter coastal marine waters through  
44 disposal of the plants or aquarium water into storm drains or coastal waters. Currently,  
45 *Caulerpa* has been found in two Southern California locations. Due to its potential to

1 create severe ecological and economic losses, a Caulerpa survey must be completed in  
 2 accordance with the Caulerpa Control Protocol prior to any underwater disturbance (such  
 3 as bulkhead repair, pile driving, dredging, and placement of navigational aids) (NRC,  
 4 1996). A copy of the Caulerpa Control Protocol is in Appendix L of this Recirculated  
 5 Draft EIS/EIR.

### 6 **3.3.2.8 Significant Ecological Areas**

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

### 14 **3.3.2.9 Essential Fish Habitat**

15 In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management  
 16 and Conservation Act, an assessment of EFH was prepared for the Channel Deepening  
 17 Project that included impacts of dredging and filling in the West Basin (35-acre and  
 18 75-acre fills in the Southwest Slip). The proposed Project at the Berth 97-109 terminal is  
 19 located in an area designated as EFH for two Fishery Management Plans (FMPs):  
 20 Coastal Pelagics Plan and Pacific Groundfish Management Plan. Of the 94 species  
 21 federally managed under these plans, 5 are known to occur in the West Basin and could  
 22 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	<i>Engraulis mordax</i>	Most common species in Harbor; adults and larvae present (1,2,3)
Pacific sardine	<i>Sardinops sagax</i>	Abundant species in Harbor; predominantly adult (1,3)
Pacific mackerel	<i>Scomber japonicus</i>	One of top 10 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	<i>Trachurus symmetricus</i>	One of top 10 species in deeper portions of the Harbor; adult (1,2); common in lampara net samples (3)
Pacific Groundfish FMP		
English sole	<i>Parophrys vetulus</i>	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

23  
 24 One of the five species in the Coastal Pelagics FMP, northern anchovy, is well  
 25 represented in the proposed Project area, with both adults and larvae present. Pacific

1 sardine is also present. Both species support a commercial bait fishery in the Outer  
2 Harbor. Adult jack mackerels are common and likely prey upon northern anchovy in the  
3 West Basin. Adult Pacific mackerel are uncommon in the West Basin with only one  
4 collected in a year of sampling. None of the seven Pacific Groundfish FMP species  
5 found in the Inner Harbor are common. Only one, English sole, has been reported in  
6 recent surveys of the West Basin (MEC and Associates, 2002).

### 7 **3.3.2.10 Wetlands and Other Special Habitats**

#### 8 **3.3.2.10.1 Wetlands**

9 Wetlands are regulated under the Clean Water Act (CWA). The definition of wetlands  
10 varies among state and federal agencies, but USACE uses a three-parameter method that  
11 includes assessing vegetation, hydrology, and soils. Wetlands commonly present in  
12 estuarine to marine habitats are salt marshes dominated by pickleweed (*Salicornia*  
13 *virginica*) and other salt tolerant plant species. No wetlands under the USACE  
14 jurisdiction are present at or near the proposed Project site. Some pickleweed could be  
15 present in the Southwest Slip on riprap but would not be affected because no in-water  
16 work occurs in this location. The closest wetlands are at Cabrillo Beach in the Outer  
17 Harbor, over 3 miles from the proposed Project.

#### 18 **3.3.2.10.2 Eelgrass Beds**

19 Another special habitat in the Harbor is eelgrass (*Zostera marina*). Eelgrass is a rooted  
20 aquatic plant that inhabits shallow soft-bottom habitats in quiet waters of bays and  
21 estuaries, as well as sheltered coastal areas (Dawson and Foster, 1982). Eelgrass can  
22 form dense beds that provide substrate, food, and shelter for a variety of marine  
23 organisms. Most eelgrass beds in bays or estuaries are found in water less than 20 feet  
24 deep with light being the primary limiting factor. Eelgrass beds, as with wetlands, are  
25 considered “special aquatic sites” under the CWA. Surveys of the Harbor in 2000 found  
26 eelgrass beds along Cabrillo Beach and in the Pier 300 Shallow Water Habitat (MEC and  
27 Associates, 2002). No eelgrass beds are present in the proposed Project area, nor would  
28 West Basin be considered likely habitat for eelgrass due to water depths and absence of  
29 suitable soft-bottom habitat. The closest eelgrass beds are in the shallow water adjacent  
30 to Cabrillo Beach, more than 3 miles from the proposed Project.

#### 31 **3.3.2.10.3 Kelp Beds**

32 Small kelp beds are present in the Outer Harbor along the breakwater and on the  
33 containment dike for the Cabrillo Shallow Water Habitat (MEC and Associates, 2002).  
34 No kelp was observed in the West Basin during the 2000 baseline surveys, and none  
35 currently is expected to occur in this area.

#### 36 **3.3.2.10.4 Mudflats**

37 The shoreline at and near the proposed Project site is rock riprap with wharves. No  
38 mudflats, which are also considered a “special aquatic site” under the CWA, are present  
39 at the proposed Project site. However, mudflats are present at Berth 78 along the Main  
40 Channel adjacent to the route used by vessels entering and leaving the West Basin.

### 3.3.3 Applicable Regulations

#### 3.3.3.1 Clean Water Act

This Act (33 U.S.C Section 1251 *et seq.*) provides for the restoration and maintenance of the physical, chemical, and biological integrity of the waters of the nation. 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 United States, including wetlands and other special aquatic sites. A Section 401 Water Quality Certification or waiver from the RWQCB also is necessary for issuance of a Section 404 permit. Additional CWA 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.

#### 3.3.3.2 Rivers and Harbors Appropriations Act of 1899

Sections 9 and 10 of the Act (33 U.S.C. Section 401 *et seq.*) regulate work and development in navigable waters of the U.S., 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 the NOAA Fisheries (formerly known as the National Marine Fisheries Service) share responsibilities for administering the ESA. Whenever actions authorized, funded, or carried out by federal agencies could adversely affect listed species or affect designated critical habitat, 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 might 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 applicable Service to determine if the effect will be adverse or not, and the applicable Service then provides a concurrence letter to the action agency if the effect is not likely to be adverse.

#### 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. Section 1801 *et seq.*) require federal agencies that fund, permit, or carry out activities that may adversely affect 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 affect EFH.

#### 3.3.3.5 Migratory Bird Treaty Act

This act (16 U.S.C. Section 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 Lake or Streambed Alteration Agreement (LAA/SAA). The LAA/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 in 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 in the Pacific Coast Region took effect in March 2006. Ships must now exchange ballast water on coastwise 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. Section 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 (Section 3.14), 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). This policy defines the value of different habitats in the Harbor relative to a system of mitigation credits accrued by creating or enhancing habitat in the Harbor and at offsite locations. The assessment of impacts is based on the assumption that the proposed Project will include the following:

- A Section 401 (of the CWA) Water Quality 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.

- 1 ■ Dredged contaminated sediments would be placed and confined in the in-Harbor  
2 disposal sites that are engineered and constructed in such a manner that the  
3 contaminants cannot enter Harbor waters after the fill is complete, or be taken to an  
4 approved upland disposal site.
- 5 ■ The tenant would obtain and implement the stormwater discharge permits.
- 6 ■ Spill Prevention, Control, and Countermeasure Regulations - The Oil Spill  
7 Prevention, Control, and Countermeasure (SPCC) regulations require that the Port  
8 have in place measures that help ensure oil spills do not occur, but if they do, that  
9 there are protocols in place to contain the spill and neutralize the potential harmful  
10 impacts. An SPCC plan and an Oil Spill Contingency Plan (OSCP) would be  
11 prepared that would be reviewed and approved by the Regional Water Quality  
12 Control Board (for the SPCC) or the California Department of Fish and Game Office  
13 of Spill Prevention and Response, in consultation with other responsible agencies.  
14 The SPCC and OSCP plans would detail and implement spill prevention and control  
15 measures.

#### 16 **3.3.4.1.1 CEQA Baseline**

17 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the  
18 physical environmental conditions in the vicinity of a project that exist at the time of the  
19 NOP. These environmental conditions would normally constitute the baseline physical  
20 conditions by which the CEQA lead agency determines if an impact is significant. For  
21 purposes of this Recirculated Draft EIS/EIR, the CEQA baseline for determining the  
22 significance of potential Project impacts is the environmental setting prior to March 2001,  
23 pursuant to the ASJ described in Chapter 1, Section 1.4.3. The CEQA baseline for this  
24 proposed Project includes 45,135 TEUs per year that occurred on the Project site in the  
25 year prior to March 2001.

26 The CEQA baseline represents the setting at a fixed point in time and differs from the No  
27 Project Alternative (discussed in Section 2.5) in that the No Project Alternative addresses  
28 what is likely to happen at the site over time, starting from the existing conditions. The  
29 No Project Alternative allows for growth at the Project site that could be expected to  
30 occur without additional approvals.

#### 31 **3.3.4.1.2 NEPA Baseline**

32 For purposes of this Recirculated Draft EIS/EIR, the evaluation of significance under  
33 NEPA is defined by comparing the proposed Project or other alternative to the NEPA  
34 baseline. The NEPA baseline condition for determining significance of impacts is defined  
35 by examining the full range of construction and operational activities the applicant could  
36 implement and is likely to implement absent a permit from the USACE. Therefore, unlike  
37 the CEQA baseline, the NEPA baseline for this project is not fixed. Rather, it is dynamic  
38 to account for the many activities and impacts expected to occur even in the absence of a  
39 USACE permit. For this project, the NEPA baseline includes construction and operation  
40 of backlands container operations on up to 117 acres, but precludes construction of  
41 wharves and bridges, dredging, and improvements that would require a federal permit.  
42 The NEPA baseline would comprise 117 acres of upland development (i.e., the 72 acres of  
43 backlands currently in use plus another 45 acres resulting from the Channel Deepening  
44 Project prior to 2001), which is greater than the 2001 baseline conditions. To ensure a full  
45 analysis of the impacts associated with Phase I-III, the NEPA baseline does not include  
46 the dredging required for the Berth 100 wharf, the existing bridge across the Southwest

1 Slip, or the 1.3 acres of fill constructed as part of Phase I (i.e., the project site conditions  
2 are considered without the in-water Phase I activities and structures). In addition, the  
3 NEPA baseline would store or manage up to 632,500 TEUs onsite, but no annual ships  
4 calls are included in the NEPA baseline (see Section 2.6.2 for further information).

5 Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA  
6 baseline is not bound by statute to a “flat” or “no-growth” scenario. Therefore, the  
7 USACE may project increases in operations over the life of a project to properly describe  
8 the NEPA baseline condition. Normally, any ultimate permit decision would focus on  
9 direct impacts of the proposed Project to the aquatic environment, as well as indirect and  
10 cumulative impacts in the uplands determined to be within the scope of federal control  
11 and responsibility. Significance of the proposed Project or alternative is defined by  
12 comparing the proposed Project or alternative to the NEPA baseline (i.e., the increment).  
13 The NEPA baseline conditions are described in Section 2.6.2.

14 The NEPA baseline also differs from the “No Project” Alternative, where the Port would  
15 take no further action to construct and develop additional backlands (other than the 72  
16 acres that are currently developed). Under the No Project Alternative, no further  
17 construction impacts would occur other than removal of four A-frame cranes built as part  
18 of Phase 1. However, forecasted increases in cargo throughput (on backlands) would still  
19 occur as greater operational efficiencies are made.

#### 20 **3.3.4.2 Thresholds of Significance**

21 The significance criteria have been developed using the *City of Los Angeles CEQA*  
22 *Thresholds Guide* (City of Los Angeles, 2006) and were modified to better assess impacts  
23 of the proposed Project. Consequently, criterion **BIO-2** has been modified to delete  
24 locally designated species (because none are present) and to include state and federally  
25 designated habitats (e.g., EFH, mudflats, and wetlands), criterion **BIO-3** has been  
26 modified to cover species other than sensitive species, and **BIO-4** has been deleted  
27 because it is now included in **BIO-2**. **BIO-5** is now **BIO-4** and has been modified to  
28 address only disruption of local biological communities, and a new criterion, **BIO-5**, has  
29 been added for permanent loss of marine habitat. Aerial deposition impacts are addressed  
30 in Section 3.14, Water Quality. Impacts of a project on biological resources are  
31 considered to be significant if the project would result in any of the following:

- 32 **BIO-1** The loss of individuals, or the reduction of existing habitat, of a state or  
33 federally listed endangered, threatened, rare, protected, or candidate species, or  
34 a Species of Special Concern or the loss of federally designated critical habitat
- 35 **BIO-2** A substantial reduction or alteration of a state, federally, or locally designated  
36 natural habitat, special aquatic site, or plant community, including wetlands
- 37 **BIO-3** Interference with wildlife movement/migration corridors that may diminish the  
38 chances for long-term survival of a species
- 39 **BIO-4** A substantial disruption of local biological communities (e.g., from  
40 construction impacts or the introduction of noise, light, or invasive species)
- 41 **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, wharf construction, bridge construction, and relocation of the Catalina Express Terminal 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, which includes the West Basin, 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 California least tern and provides only limited perching/resting sites for the California 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 (such as rock dove and starlings) and would not be affected by proposed Project activities because no prey would be lost and only a small amount of potential foraging area, far less than 1 percent of the total area available for foraging, would be affected temporarily. The peregrine falcon foraging area extends for miles, and thus covers much of the Harbor as well as land areas to the west and north (Grinnell and Miller, 1986). No known peregrine falcon nesting areas (Vincent Thomas and Schuyler F. Heim bridges) would be affected due to distance from the proposed Project activities or because nesting occurs at heights that would not be affected by terminal operations. The Vincent Thomas Bridge is adjacent to and south of the Project site, but terminal operations would be confined to the Project site. The Schuyler R. Heim Bridge is over 2 miles from Berth 100. The backland areas of the Project site are not used by sensitive species for resting, foraging (except potentially by the peregrine falcon), or breeding; thus, none of these species would be present to be affected by proposed Project construction activities. The *2000 Baseline Study* reported that two peregrine falcons were nesting at the Schuyler Heim Bridge and that the falcons were observed in the vicinity in 12 out of the 20 surveys conducted during 2000 (MEC Analytical Systems, 2001b).

Other sensitive species in the Harbor that could use the water surface and onshore facilities in the West Basin include the, black skimmer, elegant tern, 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 in the West Basin or the Harbor if construction activities

1 occurred when they were present and if the disturbances caused them to avoid the work  
2 area. Thus, no individuals would be lost, and their populations would not be adversely  
3 affected by construction activities.

4 Underwater noise levels during dredging could range between 111 and 175 dB at 33 feet,  
5 depending on dredge type (Dickerson et al., 2001 and Bassett Acoustics, 2005). Pile  
6 driving produces noise levels of 177 to 220 dB at 33 feet depending on material and size  
7 of piles (Hastings and Popper, 2005). With the exception of pile driving, underwater  
8 noise levels associated with construction activities would be below the Level A  
9 harassment (potential to injure) level of 180 dB<sub>rms</sub> for marine mammals (*Federal Register*,  
10 2005). Sound pressure waves in the water caused by pile driving could affect the hearing  
11 of marine mammals (e.g., sea lions) swimming in the West Basin. Observations during  
12 pile driving for the San Francisco-Oakland Bay Bridge East Span seismic safety project  
13 showed sea lions swam rapidly out of the area when the piles were being driven (Caltrans,  
14 2001). Thus, sea lions, which are sometimes present in the West Basin, would be  
15 expected to avoid areas where sound pressure waves could affect them. Harbor seals are  
16 unlikely to be present considering that few have been observed in the West Basin (MEC  
17 and Associates, 2002). Any seals or sea lions present in the West Basin during  
18 construction (pile driving, wharf construction, and relocation of the Catalina Express  
19 Terminal docks) likely would avoid the disturbance areas and thus would not be injured.  
20 In 2001, there were three reported fatalities of sea lions in the harbor (Peretta, 2003) No  
21 other protected or sensitive marine species normally occur in the West Basin area.

22 Rock for construction of the new dikes in the vicinity of Berth 100 would be transported  
23 from a Catalina Island quarry by barge. The Berth 100 dike and fill work would require  
24 two barges per day for up to several months for each phase. These two activities would  
25 not occur concurrently. Two barges per day from Catalina Island to the West Basin  
26 would not adversely affect marine mammals in the ocean or in the Outer Harbor and  
27 Main Channel because few, if any, individuals would be present in these vessel traffic  
28 routes due to their sparse distribution in the open ocean (whales, porpoises/dolphins, seals,  
29 and sea lions) and in the Harbor (sea lions and harbor seals only), as well as because of  
30 their agility and ability to avoid damage by vessels. Barge towing speeds are very slow  
31 (no more than 5 to 6 knots), well below burst swim speeds for marine mammals allowing  
32 the animals ample time to avoid collisions. Ship interactions with marine mammals did  
33 not occur until the late 1800s (in the literature) until ships began traveling more than  
34 13 to 15 knots (Laist et al., 2001).

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

### 37 **CEQA Impact Determination**

38 Although Project construction would extend beyond the CEQA baseline area, as  
39 described above, construction activities on land and in the water would not result in a  
40 loss of individuals or habitat for rare, threatened, endangered, protected, or candidate  
41 species, or Species of Special Concern, and sound pressure waves from construction  
42 activities in the water would not injure marine mammals. Therefore, impacts would  
43 be less than significant under CEQA. No critical habitat for federally listed species is  
44 present, and no impacts would occur.

### 45 *Mitigation Measures*

46 No mitigation is required.

1 *Residual Impacts*

2 Residual impacts would be less than significant.

3 **NEPA Impact Determination**

4 As described above, in-water construction activities would not result in a loss of  
5 individuals or habitat for rare, threatened, endangered, protected, or candidate species,  
6 or Species of Special Concern, and sound pressure waves from construction activities  
7 in the water would not injure marine mammals. Therefore, impacts would be less  
8 than significant under NEPA. Backland construction activities under the proposed  
9 Project would be greater than the NEPA baseline (by 25 acres), but no sensitive  
10 species are located on the backlands that could be affected; thus, no impacts would  
11 occur under NEPA.

12 *Mitigation Measures*

13 No mitigation is required.

14 *Residual Impacts*

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

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

21 **Essential Fish Habitat**

22 The proposed Project would have no effect on the FMP species that do not occur in the  
23 West Basin, and minimal effects on those that are rare or uncommon, such as Pacific  
24 mackerel and English sole (MEC and Associates, 2002), because few, if any, individuals  
25 would be in the disturbance area. The loss of water column habitat due to placement of  
26 dike and fill (2.5 acres), however, would result in a loss of habitat and food sources for  
27 the FMP species that use the southern West Basin. The loss of habitat would not likely  
28 have a measurable effect on sustainable fisheries because it would not measurably reduce  
29 the stocks of these species in the areas where they are harvested (primarily offshore in the  
30 open ocean). Loss of habitat for pelagic fish species that might use the West Basin,  
31 particularly northern anchovy, would be considered a substantial effect that would be  
32 mitigated in accordance with established mitigation requirements as described in  
33 **Impact BIO-5)**. The most common FMP species present are northern anchovy, Pacific  
34 sardine, and jack mackerel (MEC and Associates, 2002). Dredging, dike and fill  
35 placement, and pile installation for wharf construction Berths 100-102 also could affect  
36 these FMP species through habitat disturbance (e.g., pile removal and rock riprap  
37 placement), turbidity and suspension of contaminants from the sediments associated with  
38 dredging along the berths and disposal of the material, and vibration (sound pressure  
39 waves) from pile and sheetpile driving. These effects would be temporary, occurring at  
40 intervals lasting approximately up to 4 to 5 months during the in-water construction  
41 period, with a return to baseline conditions between construction activities and following  
42 construction (see Section 3.14 for discussion of turbidity duration). No permanent loss of  
43 habitat would occur from the wharf work, although soft-bottom habitat would be  
44 converted to rocky habitat at Berths 100 and 102, and few, if any, individual fish would

1 be lost because most individuals would avoid the work area, resulting in no loss of  
2 sustainable fisheries.

3 Construction activities on land (for backlands and two bridges across the Southwest Slip)  
4 would have no direct effects on EFH, which is located in the water, because there is no  
5 in-water construction for these project elements (as discussed in Section 2.4.2.3 and  
6 Section 2.4.2.5). Runoff of sediments from such construction, however, could enter  
7 Harbor waters. As discussed in Section 3.14, implementation of sediment control  
8 measures (e.g., sediment barriers and sedimentation basins) would minimize such runoff.

### 9 **Natural Habitat or Plant Community**

10 No kelp or eelgrass beds are present in the proposed Project area, and those in other parts  
11 of the Harbor would not be affected by construction activities in the Berth 97-109 area  
12 due to their distance from the proposed Project. No designated SEAs, including the least  
13 tern nesting site on Pier 400, would be affected by the proposed Project because no  
14 construction activities would take place at or near the only SEA in the Harbor. No  
15 wetlands (including salt marsh) or mudflats would be affected because none are present  
16 in the area that could be influenced by proposed Project construction activities. The  
17 closest eelgrass beds and salt marsh are more than 3 miles from the proposed Project.  
18 Mudflats are located nearly two miles (3.2 km) from the proposed Project site along the  
19 Main Channel.

### 20 **CEQA Impact Determination**

21 Dike, fill, and pile placement in the southern West Basin would result in a permanent  
22 loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, a  
23 significant impact under CEQA. Dredging and wharf construction activities would  
24 cause temporary disturbances, but no substantial alteration, to habitat for FMP  
25 species that would be less than significant for the reasons described above. Although  
26 upland areas would be greater than those of the CEQA baseline, construction  
27 activities on the backlands, including the bridges over the Southwest Slip, would  
28 have no direct impacts on EFH or other natural habitats because none are present and  
29 because bridge construction would occur from land. Indirect impacts through runoff  
30 of sediments during storm events would be less than significant because such runoff  
31 would be controlled as described for water quality in Section 3.14 (e.g., Project-  
32 specific SWPPP with best management practices (BMPs) such as sediment barriers  
33 and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands,  
34 or mudflats would occur because none of these habitats are present at or near the  
35 proposed Project site.

### 36 *Mitigation Measures*

37 **MM BIO-1** (see **Impact BIO-5** for detailed description) would apply to this EFH  
38 impact. Mitigation of the filling of approximately 2.54 acres of Inner Harbor marine  
39 habitat would require credit from either the Bolsa Chica Mitigation Agreement or the  
40 Outer Harbor Mitigation Bank. This mitigation measure would fully offset proposed  
41 Project impacts to EFH, sustainable fisheries, and loss of general marine habitat (see  
42 **Impact BIO-5**). No mitigation is required for impacts to natural habitats, special  
43 aquatic sites, or plant communities.

1                                    *Residual Impacts*

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

5                                    **NEPA Impact Determination**

6                                    Dike, fill, and pile placement in the southern West Basin would result in a permanent  
7                                    loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, as  
8                                    described above for CEQA, which would be a significant impact under NEPA.  
9                                    Impacts would be less than significant for other in-water construction activities (e.g.,  
10                                   wharf construction/reconstruction and dredging). Runoff of sediments from the  
11                                   Project backlands during storm events would be less than significant because such  
12                                   runoff would be controlled as described for water quality in Section 3.14 (e.g.,  
13                                   Project-specific SWPPP with BMPs such as sediment barriers and sedimentation  
14                                   basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would  
15                                   occur because none are present at or near the proposed Project site. Although  
16                                   backland construction activities under the proposed Project would occur on a larger  
17                                   area than the NEPA baseline (142 acres vs. 117 acres), construction BMPs would  
18                                   minimize impacts; consequently, backland construction would not result in  
19                                   significant impacts under NEPA.

20                                   *Mitigation Measures*

21                                   **MM BIO-1** would apply to this impact. Mitigation of the filling of approximately  
22                                   2.54 acres of Inner Harbor marine habitat would require credit from either the Bolsa  
23                                   Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation  
24                                   measure would fully offset proposed Project impacts to EFH sustainable fisheries and  
25                                   loss of general marine habitat (see **Impact BIO-5** below).

26                                   *Residual Impacts*

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

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

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

## CEQA Impact Determination

Although construction would extend beyond the CEQA baseline, 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, dike and fill placement, pile installation, and general wharf construction in the water, bridge construction over the Southwest Slip, as well as backland construction activities on the Project site, would not affect any wildlife movement or migration corridors as described above; therefore, no impacts would occur under NEPA. Although backland construction activities on the Project site would be occur on a larger area than would occur under the NEPA baseline (by 25 acres), there are no wildlife movement or migration corridors on the Project site; consequently, backland construction would not result in significant impacts under NEPA.

### *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, dike and fill placement, and pile installation required for the new wharves at Berth 100 disturbed, removed, and filled approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I (Table 3.3-3). In Phase II, no dredging would occur, but minimal soft-bottom habitat area (approximately 1,725 square feet, which is the collective area of the cross-sectional areas of the piles for the wharf and relocated docks for the Catalina Express Terminal at Berth 95) would be removed for pile installation. In Phase III, approximately 1.2 acres of soft-bottom habitat would be disturbed and filled over as a result of dike, fill, and pile placement for the Berth 100 southern extension. This dredging would also result in a slight increase in water column habitat. Benthic invertebrates living in and on the sediments to be dredged or filled adjacent to the berths would be lost. At a biomass of 21 g/m<sup>2</sup>, approximately 0.1 metric ton of invertebrates living in the sediments would be removed or covered for the Berth 100 extension. The habitat would be altered by covering it with dike and fill or displacing it with piles, but the newly exposed dike riprap and piles provide new habitat that would be colonized by a diverse assemblage of marine organisms at a higher biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and Associates, 2002) than that found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and Associates, 2002) based on observed biomass

1 of organisms in/on those habitats. Although a small proportion of the soft bottom in the  
 2 West Basin would be affected by the dredging, fill, and pile placement, the loss of  
 3 benthic community in the West Basin or the Harbor would be considered significant.

**Table 3.3-3. Berths 97-109 Habitat Impact Summary**

Construction Phase	Location	Permanent Impacts (acres)			Temporary Impacts (acres)	
		Soft Bottom	Dike/Fill/Pile	Water Surface	Soft Bottom	Hard Bottom
I	Berth 100 (dredge, dike, and fill)	-1.3	+1.3	0	1.3	0.0
II	Berth 102 (pile installations)	0.04	0.04	0	—	—
III	Berth 100 South Extension (dike and fill)	-1.2	+1.2	0	1.2	—
<b>Total Berths 97-102*</b>		<b>-2.54</b>	<b>-2.54</b>	0	<b>2.54</b>	—

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

\* The installation of piles for the relocation of the Catalina Express terminal docks would cause a loss of approximately 0.001 acres of marine habitat and is included in the 2.54 acre estimate for rounding purposes.

4  
 5 Benthic organisms in a narrow strip of soft-bottom areas adjacent to the dredging and on  
 6 the riprap, piles, and bulkheads along the existing berths would be subjected to temporary  
 7 disturbances from turbidity and sediment resuspension and deposition generated by  
 8 dredging. Lethal and sublethal effects that could occur include direct mortality, arrested  
 9 development, reduction in growth, reduced ingestion, depressed filtration rate, and  
 10 increased mucous secretion. Some benthic organisms could be buried by sediments  
 11 settling on them while others would be able to move upward as the sediments accumulate.  
 12 Effects of turbidity and sediment deposition on the benthic habitat would be temporary  
 13 with rapid recovery of the benthic communities that reside in the sediments, and the West  
 14 Basin benthic community would not be substantially disrupted over the long term.

15 Removal of the top layer of sediment that, in some areas, contains accumulated  
 16 contaminants and sediments deposited over time from numerous sources, including  
 17 terrestrial inputs such as stormwater runoff and aerial deposition, would decrease the  
 18 potential for bioaccumulation of contaminants in aquatic organisms residing in the West  
 19 Basin if the lower layers that are exposed by the dredging are not also contaminated.  
 20 Thus, placing the contaminated sediments in a landfill or confined disposal facility (CDF)  
 21 or upland storage site could provide a benefit to water quality and organisms in the West  
 22 Basin and the Harbor as a whole, by removing a pollutant source in a small area.  
 23 However, filling would result in a net loss of approximately 2.54 acres of habitat for  
 24 organisms within the food web (see **Impact BIO-5**).

25 Planktonic organisms would be temporarily affected by turbidity in the water column.  
 26 Turbidity can impact plankton populations by lowering the light available for  
 27 phytoplankton photosynthesis and by clogging the filter feeding mechanisms of  
 28 zooplankton. Effects on plankton would be short term and limited to the immediate  
 29 vicinity of the dredging because these organisms move with the currents through the  
 30 study area, making the duration of their exposure to turbidity plumes short. Planktonic

1 organisms have a naturally occurring high mortality rate, and their reproductive rates are  
2 correspondingly high (Dawson and Pieper, 1993), which allows for rapid recovery from  
3 small, localized impacts. Thus, West Basin and Harbor planktonic organism  
4 communities would not be substantially disrupted. Elutriate tests on the sediments to be  
5 dredged indicate that significant biological impacts will not occur from resuspension of  
6 sediments containing contaminants or mobilization of the contaminants into the water  
7 column (AMEC, 2003) (Section 3.14). In addition, dilution by tidal waters moving into  
8 and out of the Harbor, wind-induced mixing, and diffusion would further reduce the low  
9 concentrations of contaminants potentially present.

10 Fish in the water column and on or near the bottom of the West Basin would be  
11 temporarily disturbed by the dredging activities as a result of turbidity, noise,  
12 displacement, and vibration. Most fish would leave the immediate area of the dredging,  
13 although some may stay to feed on invertebrates released from the sediments. No  
14 mortality of fish has been observed in the Outer Harbor as a result of dredging activities  
15 associated with the Deep Draft Navigation Improvements Project (Pier 400) (USACE and  
16 LAHD, 1992). Recolonization of areas affected by dredging would begin immediately  
17 and provide a food source for fish. There would be no substantial disruption of Inner  
18 Harbor fish communities because the affected area represents only a small proportion of  
19 the total available foraging area in the West Basin. Marine mammals (such as sea lions)  
20 in the West Basin and the Harbor at the time of construction could be temporarily  
21 disturbed by construction activities, but any individuals present would likely avoid the  
22 immediate work area. Sea lions, of a related species, have been observed close to pile  
23 driving with no apparent effects or changes in the density of local populations, which  
24 would indicate a potentially disruptive effect of the construction (Blackwell et al., 2004).  
25 Marine mammals (such as sea lions) are often found close to boats or humans; however,  
26 these marine mammals are extremely good swimmers and will actively avoid contact  
27 (Daughterty, 1979). Few, if any, would be present based on survey data from 2000  
28 (MEC and Associates, 2002). Construction activities would not interfere with marine  
29 mammal foraging because the disturbances would be in localized areas of the West Basin,  
30 and large foraging areas would remain available to them elsewhere in the West Basin and  
31 throughout the Harbor.

## 32 Wharf and Backland Construction

33 Construction of a new 2,500-foot wharf at Berths 100-102 would add areas of new rock  
34 dike hard substrate habitat. The placement of dike and fill would result in the loss of  
35 approximately 0.2 metric ton of benthic invertebrates, including the 0.1 metric ton lost  
36 from dredging. The hard substrate would be in the intertidal zone and shaded by the  
37 wharf, so that only marginal aquatic habitat benefit would accrue from the small amount  
38 of new substrate created. Approximately 1,600 piles (not all in water) were installed for  
39 the Berth 100 wharf (1,200 feet) in Phase I. For the remaining 1,300 feet of new wharf,  
40 approximately 776 piles would be installed. The piles would be placed in existing or new  
41 riprap areas. In new riprap areas, few benthic organisms would be lost because little  
42 colonization of the rock would have occurred by the time of the installation. In existing  
43 riprap areas, the organisms within the footprint of each pile would be lost or disturbed.  
44 The surface of the piles in the water would replace the hard substrate benthic habitat lost  
45 within the pile footprints. The new piles would convert a small amount of water column  
46 habitat into hard substrate habitat.

47 Construction of wharf and container terminal facilities on newly created fill (by the  
48 Channel Deepening Project prior to 2001), as well as construction on previously

1 developed areas, could affect biological resources through (1) noise and vibration and  
2 (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving)  
3 would likely cause most fish and birds to temporarily leave the immediate construction  
4 area. Fish and bird populations would not be adversely affected because the small  
5 number of individuals moving into other areas, the short duration of the disturbance, and  
6 the small area affected would not substantially disrupt West Basin biological  
7 communities. Backland improvement activities, including the bridges across the  
8 Southwest Slip, would have minimal effect on terrestrial biota because the species  
9 present are non-native and/or adapted to use of developed sites. Disturbances to marine  
10 species would be temporary, and the animals present could move to other nearby areas  
11 for the duration of the disturbance. Consequently, local biological communities of this  
12 industrial area would not be substantially disrupted.

13 Runoff of pollutants from backland construction activities would be minimized through  
14 use of BMPs (see Section 3.14), and the low concentrations that could enter Harbor  
15 waters would not adversely affect marine organisms.

### 16 **Accidents**

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

21 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
22 dredging and disposal of the material are unlikely to occur during the proposed Project  
23 (see Section 3.14 **Impact WQ-1d**) and adversely affect aquatic biota to the degree that  
24 local biological communities are not substantially disrupted. Any such spills would be  
25 small and cleaned up immediately, resulting in loss of only a few common marine  
26 organisms and causing no adverse effects on biological communities as a whole.  
27 A larger spill that could have locally substantial effects on biological resources is not  
28 expected to occur, even under reasonable worst-case conditions (see Section 3.8,  
29 Hazards). Accidental spills of pollutants during construction on land would be small  
30 because large quantities of such substances would not be used during construction. These  
31 spills would be contained and cleaned up with no runoff to Harbor waters (see  
32 Section 3.14, Water Quality, Sediments, and Oceanography).

### 33 **CEQA Impact Determination**

34 Construction activities on the backlands would extend beyond the CEQA baseline  
35 area but would result in no substantial disruption of local biological communities for  
36 the reasons described above; therefore, impacts would be less than significant.  
37 However, the loss of approximately 2.54 acres of soft-bottom habitat in the West  
38 Basin would represent a significant impact to the benthic community. Runoff of  
39 pollutants from backland construction activities would not substantially disrupt  
40 biological communities in the West Basin and would have only localized, short-term,  
41 less than significant impacts on marine organisms in the immediate vicinity of drain  
42 outlets. This is due to implementation of runoff control measures that are part of the  
43 proposed Project (e.g., Project-specific SWPPP and BMPs such as sediment barriers  
44 and sedimentation basins; see Section 3.14.4.3 for a list of measures). Accidental  
45 spills from equipment during dredging would not substantially disrupt local  
46 biological communities because they would be small, contained, cleaned up  
47 immediately, and affect only a few common marine organisms, and thus would have

1 localized, less than significant impacts. Accidental spills during construction on land  
2 would not reach Harbor waters due to the implementation of BMPs, and thus would  
3 have no impacts on marine communities. No notice to proceed will be issued without  
4 approval of the specific SWPPP and BMPs

#### 5 *Mitigation Measures*

6 **MM BIO-1** would apply for benthic community impacts (see **Impact BIO-5** for  
7 detailed description of this measure).

#### 8 *Residual Impacts*

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

### 11 **NEPA Impact Determination**

12 Construction activities in waters of the West Basin would result in a loss of benthic  
13 communities in the West Basin, as described above; therefore, impacts would be  
14 significant. Although backland construction at the Project site would occur on a  
15 larger area (by 25 acres) than would occur under the NEPA baseline, no local  
16 biological communities are on the Project site that could be adversely affected.  
17 Consequently, backland construction would not result in significant biological  
18 resource impacts under NEPA.

#### 19 *Mitigation Measures*

20 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
21 detailed description of this measure).

#### 22 *Residual Impacts*

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

### 25 **Impact BIO-5: Fill Placement in the West Basin would result in a** 26 **permanent loss of marine habitat.**

27 Dike, fill, and pile placement in the West Basin occurred in Phase I and would occur in  
28 Phase III (2010-2012). Pile placement would occur during Phase II and Phase III for  
29 wharf construction and relocation of the dock (to Berth 95) for the Catalina Express  
30 Terminal. Placement of dike and fill would cause a loss of aquatic habitat, including  
31 water column and soft bottom. The beneficial uses associated with that habitat would  
32 also be lost. The dike, fill, and pile placement in the water adjacent to the berths would  
33 result in a net loss of approximately 2.54 acres.

### 34 **CEQA Impact Determination**

35 Project construction would occur beyond the CEQA baseline area into the West  
36 Basin, and the placement of dike, fill, and piles near Berths 100 and 102 would cause  
37 a permanent loss of 2.54 acres of aquatic habitat in the Los Angeles Inner Harbor  
38 (southern West Basin), as described above. This impact is considered significant  
39 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 in the Harbor. Regarding depth, shallow water habitats are those less than -20 feet mean lower-low water level (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 1 acre of deep Outer Harbor habitat, 2 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 in the Harbor.

Mitigation credits from past habitat restoration projects that are available to offset impacts of the Berth 97-109 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 50.45 credits. The Berth 97-109 proposed Project would require approximately 2.54 acres of mitigation in Inner Harbor credits or 1.25 acres 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.

**BIO-1: The LAHD shall apply 1.27 credits (=2.54 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 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.<sup>1</sup>**

### *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.

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<sup>1</sup> For **MM BIO-1** under the proposed Project and all applicable alternatives, the Port will conduct a final measurement of the loss of aquatic habitat during the design process for purposes of mitigation bank credit accounting.

**Table 3.3-4. Mitigation Available for Proposed Berth 97-109 Project**

Mitigation Bank	Approximate Credits Available	Value in Deep Outer Harbor <sup>a</sup>	Value in Shallow Outer Harbor <sup>b</sup>	Slips <sup>c</sup>
Bolsa Chica Bank	106	106	71	212
Outer Harbor Bank	49	49	33	98
Inner Harbor Bank <sup>d</sup>	6.2	n.a.	n.a.	6
<b>Total</b>	<b>161</b>	<b>155</b>	<b>104</b>	<b>316</b>

Notes:

<sup>a</sup> 1.0 credit is equal to 1 acre of fill in deep Outer Harbor.

<sup>b</sup> 1.5 credits are equal to 1 acre of fill in shallow Outer Harbor.

<sup>c</sup> 0.5 credit is equal to 1 acre of fill in Inner Harbor.

<sup>d</sup> Inner Harbor Bank credits can only be used to mitigate Inner Harbor habitat loss.

1

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

Projects	Credits
<b>Committed Credits<sup>a</sup></b>	
Berths 136-147 (TraPac)	-4.75
Pier 300A	-71.5
Cabrillo SWH Expansion A	+27.0
Cabrillo Phase II	-1.2
<b>Subtotal</b>	<b>-50.45</b>
<b>Upcoming Projects<sup>b</sup></b>	
Berths 243-245 (Southwest Marine)	-4.0
NW Slip – 5-acre Fill	-2.5
Cabrillo SWH Expansion B	+22.5
Berths 121-131 (Yang Ming)	-14.0
Eelgrass Habitat Area	-13.5
Bridge to Breakwater	+4.4
<b>Subtotal</b>	<b>-7.1</b>
<b>Total</b>	<b>-57.55</b>

<sup>a</sup> Estimated number of credits required, relative to deep Outer Harbor credits.

<sup>b</sup> Not including Berths 97-109 (proposed Project)

2

3

**NEPA Impact Determination**

4

Project construction would include in-water construction that is not included in the NEPA baseline. Construction of a dike and fill in the West Basin would cause a permanent loss of 2.54 acres of aquatic habitat in the Los Angeles Inner Harbor, as described above, and this impact is considered significant under NEPA.

5

6

7

8

*Mitigation Measures*

9

**MM BIO-1** would apply to this impact as described for CEQA.

10

*Residual Impacts*

11

**MM BIO-1** would completely mitigate the significant loss of Inner Harbor habitat

12

for aquatic species by replacement through existing mitigation agreements/banks. No

13

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 and bridges, increased vessel traffic, 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. 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 97-109 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, rail yard, 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 up to one vessel every 1 to 2 days would cause a short interval of disturbance throughout the route from Angels Gate to Berths 97-109 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 234 additional vessel calls per year above the CEQA and NEPA baseline ship calls of zero 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 (2,850 per year in Los Angeles Harbor) would not result in a measurable change in overall noise. Adding up to one vessel transit every 1 to 2 days would 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 five individuals per 100 square km [Forney et al., 1995]), the animals likely would move away from the sound as it increases in intensity from the approaching vessel, and exposure would be of short duration (Blackwell et al., 2004). Noise levels associated with vessel traffic, including near heavily used ferry terminals, generally range between 130 and 136 dB (WSDOT, 2006), which are below the injury threshold of 180 dB<sub>rms</sub>.

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

3 The addition of 234 proposed Project vessel calls to the Port would have a low  
4 probability of harming endangered, threatened, or species of concern, such as marine  
5 mammals and sea turtles. Specifically, in regard to vessel collisions with whales in  
6 California coastal waters, the large amount of vessel traffic along the coast has resulted in  
7 few (fewer than three per year on average) reported whale strikes over the past 25 years.  
8 Vessel speed seems to influence whale/ship collision incidences, and most strikes, if any  
9 were to occur, would likely be fatal to the whale because unmitigated vessel speeds are  
10 generally above 13 knots in the coastal shipping lanes. As discussed in Section 3.3.2.5,  
11 NOAA Fisheries recommends that speed restrictions in the range of 10 to 13 knots be  
12 used, where appropriate, feasible, and effective, in areas where reduced speed is likely to  
13 reduce the risk of ship strikes and would facilitate whale avoidance.

#### 14 **CEQA Impact Determination**

15 Terminal activity under the proposed Project would be greater than the CEQA  
16 baseline; however, operational activities would result in no loss of habitat for rare,  
17 threatened, endangered, protected, or candidate species, or Species of Special  
18 Concern. No impacts to critical habitat would occur because no critical habitat is  
19 present.

20 Increased ship calls, however, may affect some species. Underwater sound from  
21 proposed Project-related vessels would affect few, if any, marine mammals for the  
22 reasons described above; impacts, therefore, would be less than significant under  
23 CEQA.

24 Container ships transiting the coastal waters of Southern California could potentially  
25 cause harm to endangered, threatened, or species of concern, such as marine  
26 mammals and sea turtles, from vessel collisions. Impacts of project-related vessel  
27 traffic on marine mammals would be considered less than significant because of the  
28 low probability of vessel strikes and proposed Project vessel strikes would not be  
29 expected to occur. As discussed above, fewer than three vessel strikes with whales  
30 are reported on average per year for the California coast. Very few ship strikes  
31 involving pinnipeds have been reported over the past 28 years by the Santa Barbara  
32 Marine Mammal Center (1976 to 2004). No sea turtle-ship strikes have been reported  
33 in the area, although an olive ridley sea turtle stranded in Santa Barbara in 2003  
34 showed signs of blunt force trauma consistent with a vessel strike (Santa Barbara  
35 Marine Mammal Center 1976–2004). No collisions have been reported between any  
36 oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002), although an  
37 oil supply vessel struck and presumably killed an adult male northern elephant seal in  
38 the Santa Barbara Channel in June 1999 (Minerals Management Service, 2001).

39 Although the likelihood of such a collision is low, such collisions occur and may  
40 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
41 although considered less than significant because of the low probability of vessel  
42 strikes, any increase in vessel traffic caused by the project may incrementally  
43 increase the potential for whale strikes.

#### 44 *Mitigation Measures*

45 Although the likelihood of a collision between a vessel and marine mammals is very  
46 low, the following measure would further reduce potential impacts:

1                   **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
2                   **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
3                   **between 40 nm from Point Fermin and the Precautionary Area in**  
4                   **the following implementation schedule:**

5                   ■ **100 percent starting 2009**

6                   The average cruise speed for a container ship ranges from about 18 to 25 knots;  
7                   depending on the size of a ship (larger ships generally cruise at higher speeds). As  
8                   discussed previously, NOAA Fisheries recommends that speed restrictions in the  
9                   range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
10                  Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
11                  40 nm zone extends to the Channel Island area.

12                  *Residual Impacts*

13                  Residual impacts would be less than significant.

14                  **NEPA Impact Determination**

15                  Operation of facilities on the terminal backlands would be greater than under the  
16                  NEPA baseline due to a larger backland area and higher throughput. Terminal  
17                  activity under the proposed Project would be greater than the NEPA baseline;  
18                  however, operational activities would result in no loss of habitat for rare, threatened,  
19                  endangered, protected, or candidate species, or Species of Special Concern. No  
20                  impacts to critical habitat would occur because no critical habitat is present.

21                  Increased ship call, however, may affect some species. Underwater sound from  
22                  proposed Project-related vessels would affect few, if any, marine mammals for the  
23                  reasons described above; therefore, impacts would be less than significant under  
24                  NEPA.

25                  Container ships transiting the coastal waters of Southern California could potentially  
26                  cause harm to endangered, threatened, or species of concern, such as marine  
27                  mammals and sea turtles, from vessel collisions. Impacts of project-related vessel  
28                  traffic on marine mammals would be considered less than significant because of the  
29                  low probability of vessel strikes, and proposed Project vessel strikes would not be  
30                  expected to occur. As discussed above, fewer than three vessel strikes with whales  
31                  are reported on average per year for the California coast. Very few ship strikes  
32                  involving pinnipeds have been reported over the past 28 years by the Santa Barbara  
33                  Marine Mammal Center (1976 to 2004). No sea turtle-ship strikes have been  
34                  reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
35                  2003 showed signs of blunt force trauma consistent with a vessel strike  
36                  (Santa Barbara Marine Mammal Center 1976–2004). No collisions have been  
37                  reported between any oil tankers and any cetaceans or sea turtles in the region  
38                  (Cordaro, 2002), although an oil supply vessel struck and presumably killed an adult  
39                  male northern elephant seal in the Santa Barbara Channel in June 1999 (Minerals  
40                  Management Service, 2001).

41                  Although the likelihood of such a collision is very low, such collisions occur and may  
42                  cause an impact to species listed on the ESA, especially blue whales. Therefore,  
43                  although considered less than significant because of the low probability of vessel  
44                  strikes, any increase in vessel traffic caused by the project may incrementally  
45                  increase the potential for whale strikes.

1 *Mitigation Measures*

2 Although the likelihood of a collision between a vessel and marine mammals is very  
3 low, the following measure would further reduce potential impacts:

4 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at Berths 97-109**  
5 **shall comply with the expanded VSRP of 12 knots between 40 nm**  
6 **from Point Fermin and the Precautionary Area in the following**  
7 **implementation schedule:**

8 ■ **100 percent starting 2009**

9 The average cruise speed for a container ship ranges from about 18 to 25 knots;  
10 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
11 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
12 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
13 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
14 40 nm zone extends to the Channel Island area.

15 *Residual Impacts*

16 Residual impacts would be less than significant for operation of facilities in the water.  
17 No residual impacts would occur for operations on the Project backlands.

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

22 **Essential Fish Habitat**

23 Operation of proposed Project facilities in the West Basin would have minimal effects on  
24 EFH. Although, the proposed Project vessels would add to the number of noise events,  
25 they would not substantially add to the overall underwater noise level. The addition of up  
26 to one vessel trip every 1 to 2 days would not adversely affect FMP species present in the  
27 Outer Harbor, Main Channel, or the West Basin because the additional trips proposed for  
28 the Project are infrequent. Schooling fish, such as sardines and anchovy, likely would  
29 ignore the ship movements and sound, or temporarily move out of the way. Other FMP  
30 species are rare in the port, and vessel noise would result in temporary effects on their  
31 distribution in the port despite a projected additional 234 visits to the existing number of  
32 ship calls (332 ships in 2001) into the West Basin. In recent history, the Port has  
33 witnessed an improvement in fish abundance including EFH for FMP species (MEC and  
34 Associates, 2002), even though there has been increased vessel traffic in the Harbor.  
35 Therefore, it is unlikely that additional ship calls would affect FMP species, and  
36 additional ship calls would not adversely affect EFH for any species in the Harbor.  
37 Therefore, additional ship calls would not adversely affect EFH species. Operation of  
38 proposed Project facilities on land would not affect EFH because none is present on land.  
39 Runoff from the new facilities would not substantially reduce or alter EFH in Harbor  
40 waters because water quality standards for protection of marine life would not be  
41 exceeded (see Section 3.14, Water Quality, Sediments, and Oceanography).

42 **Natural Habitat or Plant Community**

43 As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
44 could be affected by operation of proposed Project facilities. No wetlands or eelgrass are

1 present in the proposed Project area, and those in other areas of the Harbor are not  
2 located in or near (over 1 mile away) the channels used for vessel movement in the  
3 Harbor. No mudflats are present at the proposed Project site, and the small increase in  
4 vessel traffic would not affect the mudflats along the Main Channel. Thus, these habitats  
5 would not be affected by operational activities in the West Basin or vessel transit through  
6 the Harbor to the West Basin.

### 7 **CEQA Impact Determination**

8 Activity in the terminal under the proposed Project would be greater than the CEQA  
9 baseline; however, operational activities on land and in the water would not  
10 substantially reduce or alter EFH for the reasons described above, and no significant  
11 impacts to EFH would occur under CEQA. No SEAs, natural plant communities,  
12 wetlands, or eelgrass beds are present, and the mudflats along the Main Channel  
13 would not be affected by project-related vessel traffic, resulting in no impacts under  
14 CEQA.

#### 15 *Mitigation Measures*

16 No mitigation is required.

#### 17 *Residual Impacts*

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

### 20 **NEPA Impact Determination**

21 Operational activities in the water would not substantially reduce or alter EFH for the  
22 reasons described above, resulting in less than significant impacts to EFH under  
23 NEPA. Operational activities in the water would result in no impacts to SEAs,  
24 natural plant communities, wetlands, and eelgrass because none are present, as well  
25 as no impacts to mudflats along the Main Channel because Project-related vessel  
26 traffic would not affect them. Operational activities on Project backlands would be  
27 more intensive than operational activities under the NEPA baseline (25 more acres),  
28 but there are no EFH or natural habitats on the Project site; consequently, backland  
29 operations would not result in impacts under NEPA.

#### 30 *Mitigation Measures*

31 No mitigation is required.

#### 32 *Residual Impacts*

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

### 35 **Impact BIO-3b: Operation of proposed Project facilities would not** 36 **interfere with wildlife movement/migration corridors.**

37 As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
38 migration corridors are present in the proposed Project area, either on land or in the water.  
39 Migration by bird species that visit or pass through the proposed Project area would not  
40 be affected by the changes in terminal operations because the new structures would not  
41 impede their movement. Operation of the backland facilities, including the bridges over  
42 the Southwest Slip would not interfere with any terrestrial migration corridors because

1 none are present in those areas. Proposed Project-related vessel traffic to and from the  
2 Harbor would not interfere with marine mammal migrations along the coast because  
3 these vessels would represent a small proportion (8 percent) of the total Port-related  
4 commercial traffic in the area, and each vessel would have a low probability of  
5 encountering migrating marine mammals during transit through coastal waters because  
6 these animals are generally sparsely distributed (i.e., have densities of less than five  
7 individuals per 100 square kilometers [Forney et al., 1995]).

### 8 **CEQA Impact Determination**

9 Although terminal operations would extend over a larger area and be more intensive  
10 than the CEQA baseline, no wildlife movement or migration corridors on land or in  
11 the water would be affected by the proposed Project for the reasons described above,  
12 resulting in no impacts under CEQA.

#### 13 *Mitigation Measures*

14 No mitigation is required.

#### 15 *Residual Impacts*

16 No residual impacts would occur.

### 17 **NEPA Impact Determination**

18 Proposed Project facilities and their operation would not affect any wildlife  
19 movement or migration corridors in the water for the reasons described above;  
20 therefore, no impacts would occur under NEPA. Operational activities on Project  
21 backlands would be more intensive than operational activities under the NEPA  
22 baseline (25 more acres), but there are no migration corridors on the Project site;  
23 consequently, backland operations would not result in significant impacts under  
24 NEPA.

#### 25 *Mitigation Measures*

26 No mitigation is required.

#### 27 *Residual Impacts*

28 No residual impacts would occur.

### 29 **Impact BIO-4b: Operation of the new facilities could substantially** 30 **disrupt local biological communities.**

31 New hard substrate (rocky dike and pilings) would marginally add to benthic productivity  
32 in the Harbor while pilings would also add structure in the water column that could be  
33 used by invertebrates and fish. The new wharf would be constructed shortly after dike  
34 and fill placement, and shade upon the newly placed riprap with no developed benthic  
35 community would select for aquatic communities that are adapted to shade. The two new  
36 bridges over the Southwest Slip would produce shade that would reduce the benthic  
37 community present (MEC and Associates, 2002). However, given the small affected  
38 marine areas of the bridges (approximately 90 feet by 70 feet each); a substantial  
39 disruption of the marine biological communities is not anticipated.

40 Vessel traffic at the new wharves would have minimal direct effects on marine organisms  
41 as a result of propeller wash (USACE and LAHD, 1992). This traffic increase would

1 adversely affect organisms in the water column, such as fish and plankton, as each vessel  
2 passes. The disturbance would cause fish to move at least a short distance and could  
3 damage some individual planktonic organisms through turbulence. Turbidity from the  
4 propeller wash would form a small plume behind each vessel. However, this would  
5 dissipate rapidly as described for dredging in **Impact BIO-4a**. West Basin and Harbor  
6 biological communities would not be substantially disrupted, however, because the  
7 physical disturbance would occur in a small area, over a short duration (a few minutes at  
8 each location along the route from Angels Gate to the West Basin), and infrequently  
9 (once every 1 to 2 days). The Harbor historically has a highly active environment with  
10 many ships, tugs, and work boats moving along the channels. Addition of vessels calls  
11 would not substantially change this environment.

12 Accidental spills of fuel or other vessel fluids during operation could occur as a result of  
13 a vessel collision, although the likelihood is considered remote due to the use of Port  
14 Pilots to navigate the Harbor, because of the requirement that vessels travel in the Harbor  
15 at slow speeds, and due to the use of tugs to slowly guide vessels to and from the berths.  
16 SPCC regulations require that the Port have in place measures that help ensure oil spills  
17 do not occur, but if they do, that there are protocols in place to contain the spill and  
18 neutralize the potential harmful impacts. An SPCC plan and an OSCP would be prepared  
19 that would be reviewed and approved by the RWQCB or the CDFG Office of Spill  
20 Prevention and Response, in consultation with other responsible agencies. The SPCC  
21 and OSCP plans would detail and implement spill prevention and control measures.  
22 However, container shipping vessels hold larger amounts of fuels than construction-  
23 related vessels. If an accident occurs and fuels are spilled into Harbor or ocean waters,  
24 the fuel could harm biological resources, depending on the extent of the spill. Such a  
25 vessel spill would be considered a significant impact due to the potential for harm to  
26 biological resources.

27 Accidental spills of pollutants during terminal operations on land would be small because  
28 large quantities of such substances would not be used. Also, as discussed in Section 3.14,  
29 compliance with standard laws and requirements would ensure that terminal facilities  
30 include containment and other countermeasures that would prevent upland spills from  
31 reaching navigable waters. In addition, oil spill contingency plans are required to address  
32 spill cleanup measures after a spill has occurred. Furthermore, the site drainage system  
33 would include Stormceptors or other BMP devices to process site runoff prior to  
34 discharge (see Section 3.14 for further information). Because of these measures, upland  
35 spills from terminal operations are not expected to result in significant impacts to  
36 biological resources.

37 Runoff of pollutants to the Harbor from the new facilities on existing land and the new  
38 landfill will have negligible effects on marine biological communities (fish, benthos,  
39 plankton) because water quality standards for protection of marine life would not be  
40 exceeded (see Section 3.14). Such runoff could occur during dry weather and from storm  
41 events. The latter are periodic, primarily during the winter rainy season, and generally of  
42 short duration.

43 New lights would be added to the backlands and terminal sites. The new lights would all  
44 be low glare lights with reduced light emissions (see Section 3.1, Aesthetics). The  
45 amount of light in the proposed Project area would not substantially increase. Because  
46 the lighting would be in industrial areas, the light would not substantially affect terrestrial  
47 wildlife habitat or the species present. Most of the new lights would be located away  
48 from the edge of the water (throughout the backlands), and this would minimize effects  
49 on marine organisms so that biological communities would not be substantially disrupted.

## 1 **CEQA Impact Determination**

2 A remote potential exists for an accidental vessel spill that could harm biological  
3 resources in the Harbor or ocean to occur during Project operation. Such a spill  
4 would be considered significant. Upland spills from terminal operations are not  
5 expected to result in significant impacts for the reason discussed previously.

6 Although terminal operations would extend over a larger area and be more intensive  
7 than the CEQA baseline, Project operations would not substantially disrupt West  
8 Basin and Harbor biological communities through runoff of contaminants. Existing  
9 runoff and storm drain discharge controls, as well as conditions of all proposed  
10 Project-specific permits, would be implemented (see Section 3.14, Water Quality,  
11 Sediments, and Oceanography). The presence of new wharf structures, increased  
12 vessel traffic, or new lighting would not substantially disrupt West Basin and Harbor  
13 biological communities, for the reasons described above. Impacts, therefore, would  
14 be less than significant under CEQA.

### 15 *Mitigation Measures*

16 No mitigation, beyond implementation of measures required under existing  
17 regulations, is available to fully mitigate potential impacts related to potential  
18 accidental spills from container vessels during project operation.

### 19 *Residual Impacts*

20 Residual impacts related to potential vessel spills would be significant.

21 Residual impacts would be less than significant for other in-water operations and for  
22 operation of land facilities.

## 23 **NEPA Impact Determination**

24 A remote potential exists for an accidental vessel spill that could harm biological  
25 resources in the Harbor or ocean to occur during Project operation. Such a spill  
26 would be considered significant. Upland spills from terminal operations are not  
27 expected to result in significant impacts for the reason discussed previously.

28 The new wharf structures in the water column, shade from the new bridges, and  
29 increased vessel traffic would not substantially disrupt West Basin and Harbor  
30 biological communities for the reasons described above. Consequently, impacts to  
31 biological communities would be less than significant under NEPA. Although  
32 backland operation of facilities on the Project site would be more intensive than the  
33 NEPA baseline due to higher backland acreage (by 25 acres) and increased  
34 throughout, there are no biological communities on the Project site that could be  
35 adversely affected. Therefore, upland operations would not result in significant  
36 impacts to local biological communities under NEPA.

### 37 *Mitigation Measures*

38 No mitigation, beyond implementation of measures required under existing  
39 regulations, is available to fully mitigate potential impacts related to potential  
40 accidental spills from container vessels during project operation.

### *Residual Impacts*

Residual impacts related to potential vessel spills would be significant.

Residual impacts would be less than significant for other in-water operations and for operation of land facilities.

#### **Impact BIO-4c: Operation of the proposed Project 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 because 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 (CSLC, 2006). The Commission recommended that the state legislature broaden the state program and adopt regulations to prevent nonindigenous 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 these species. *Undaria pinnatifida*, which was discovered in the Los Angeles and Long Beach Harbors in 2000 (MEC and Associates, 2002), and *Sargassum filicinum*, discovered in October 2003 (MBC, 2003), may be introduced and/or spread as a result of hull fouling or ballast water and, therefore, might have the potential to increase in the Harbor via vessels traveling between ports in the EEZ. Invertebrates that attach to vessel hulls could be introduced in a similar manner.

The proposed Project in the West Basin would result in an increase of 234 vessels per year (compared to the CEQA and NEPA baseline ships calls of zero), which represents an approximately 8 percent increase in vessel traffic compared to the total number of vessels entering the Port (approximately 2,850 vessels in 2004). Considering, the small discharge of nonlocal 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

1 antifouling paints and cleaned at intervals to reduce the frictional drag from growths of  
2 organisms on the hull (Global Security, 2007), which would reduce the potential for  
3 transport of exotic species. For these reasons, the proposed Project has a low potential to  
4 increase the introduction of non-native species into the Harbor that could substantially  
5 disrupt local biological communities, but such effects could still occur.

### 6 **CEQA Impact Determination**

7 The proposed Project would increase the annual ship calls relative to the CEQA  
8 baseline. Operation of the proposed Project facilities has the potential to result in the  
9 introduction of non-native species into the Harbor via ballast water or vessel hulls  
10 and thus could substantially disrupt local biological communities. Impacts, therefore,  
11 would be significant under CEQA.

#### 12 *Mitigation Measures*

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

#### 17 *Residual Impacts*

18 Residual impacts are considered to be significant.

### 19 **NEPA Impact Determination**

20 The proposed Project would increase the annual ship calls relative to the NEPA  
21 baseline. Operation of the proposed Project facilities has a potential to result in the  
22 introduction of non-native species into the Harbor via ballast water or vessel hulls  
23 and thus could substantially disrupt local biological communities. Impacts, therefore,  
24 would be significant under NEPA.

#### 25 *Mitigation Measures*

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

#### 30 *Residual Impacts*

31 Residual impacts from the potential introduction of invasive species via vessel hulls  
32 are considered to be significant.

## 33 **3.3.4.3.2 Alternatives**

### 34 **3.3.4.3.2.1 Alternative 1 – No Project Alternative**

35 Alternative 1 would utilize the terminal site constructed as part of Phase I for container  
36 storage. Because of this, the Phase I construction activities are included under  
37 Alternative 1 although the in-water Phase I elements would be abandoned.

38 Under Alternative 1, Phase I backlands construction, dike and fill installation, and wharf  
39 and bridge construction are included, but no further dredging, filling, new wharf  
40 construction, or new backlands or bridge development would occur.

1 In addition, under Alternative 1, the existing 72-acre backlands would be utilized by the  
2 Berth 121-131 Container Terminal for supplemental container storage. Because the  
3 Berth 121-131 terminal is berth limited, use of Berths 97-109 by Yang Ming will not  
4 result in additional ship, truck, or rail trips at the Berth 121-131 terminal.

5 As part of Alternative 1, the existing four A-frame cranes would be removed, the bridge  
6 over the Southwest Slip abandoned, and all wharf operations would cease. Existing  
7 storm drains would continue to collect and discharge stormwater runoff as under baseline  
8 conditions. The 1.3 acres of fill added to waters of the U.S. during construction of  
9 Phase I of the proposed Project (as allowed under the ASJ and under USACE permit),  
10 which was fully mitigated by applying mitigation bank credit offsets and in-water  
11 construction BMPs, would remain in place under Alternative 1.

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

16 Anticipated impacts to threatened or endangered species or their habitat from dredging,  
17 dike placement, fill, pile installation, and wharf improvements under Alternative 1 would  
18 be the same as Phase I of the proposed Project and would be unlikely to affect such  
19 resources through temporary increases in noise, vibration, and turbidity. The potential  
20 for displacement of individuals from the work area as described in **Impact BIO-1a** for  
21 the proposed Project also would be unlikely to be affected. No critical habitat for any  
22 federally listed species is present in the Alternative 1 Project area. Foraging by the  
23 California least tern, California brown pelican, or any other special-status species in  
24 Table 3.3-1 could continue during construction with no adverse effects to the species.  
25 Individuals using the West Basin could use other areas in the Harbor if they choose to  
26 avoid the immediate construction work area. No individuals would be lost, and their  
27 populations would not be adversely affected by construction activities.

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

31 Transport of rock for the wharf work at Berth 100 is the same as for the proposed Project.

32 USACE has made a “no effect” determination for federally listed species in the Project  
33 area in accordance with requirements of Section 7 of the ESA.

34 **CEQA Impact Determination**

35 Although Alternative 1 construction extended beyond the CEQA baseline area,  
36 construction activities on land and in the water under Alternative 1 did not result in a  
37 loss of individuals or habitat for rare, threatened, endangered, protected, or candidate  
38 species, or Species of Special Concern. Sound pressure waves from construction  
39 activities in the water would not injure marine mammals. No critical habitat for  
40 federally listed species is present, and no significant impacts would occur under  
41 CEQA.

42 *Mitigation Measures*

43 No mitigation is required.

1                    *Residual Impacts*

2                    No residual impacts would occur.

3                    **NEPA Impact Determination**

4                    The impacts of this No Project Alternative are not required to be analyzed under  
5                    NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
6                    Alternative 2 in this document).

7                    *Mitigation Measures*

8                    Mitigation measures are not applicable.

9                    *Residual Impacts*

10                  A residual impact determination is not applicable.

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

15                  Construction of terminal improvements under Alternative 1 did not affect FMP species  
16                  that do not occur in the West Basin and had minimal effects on those that are rare or  
17                  uncommon, such as Pacific mackerel and English sole (MEC and Associates, 2002)  
18                  because few, if any, individuals frequent the disturbance area. Effects of dredging, dike  
19                  and fill placement, pile installations, and wharf construction at Berth 100 on FMP species  
20                  are similar to those described for the proposed Project. The loss of water column habitat  
21                  due to placement of fill (1.3 acres) in Phase I resulted in a loss of habitat and food  
22                  sources for the FMP species that use the southern West Basin. The loss of habitat would  
23                  not likely have a measurable effect on sustainable fisheries because it would not  
24                  measurably reduce the stocks of these species in the areas where they are harvested  
25                  (primarily offshore in the open ocean). Loss of habitat for pelagic fish species that might  
26                  use the West Basin, particularly northern anchovy, is considered a substantial effect that  
27                  would be mitigated in accordance with established mitigation requirements, as described  
28                  in **Impact BIO-5**.

29                  Construction activities on upland areas under Alternative 1 (including the single bridge  
30                  across the Southwest Slip) had no direct effects on EFH, which is located in the water.  
31                  Runoff of sediments and contaminants from such construction, however, could have  
32                  entered Harbor waters. As discussed in Section 3.14, implementation of sediment control  
33                  measures (e.g., sediment barriers and sedimentation basins) and BMPs minimize the  
34                  impacts of such runoff.

35                  No kelp or eelgrass beds are present in the Alternative 1 area, and those in other parts of  
36                  the Harbor were not affected by construction activities for Phase I, as applied to  
37                  Alternative 1, due to their distance from the work area. No designated SEAs, including  
38                  the least tern nesting site on Pier 400, were affected by construction under this alternative  
39                  because no Phase I construction took place at or near this SEA. As described for the  
40                  proposed Project, no wetlands or mudflats are present in the Alternative 1 project area,  
41                  and those in other areas of the Harbor were not affected by Phase I construction activities  
42                  in the West Basin due to distance from the Alternative 1 Project site (more than 3 miles).

## CEQA Impact Determination

Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to Alternative 1) resulted in a permanent loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, a significant impact under CEQA. Although upland areas under this alternative are greater than those of the CEQA baseline, construction activities on the backlands, including the bridge over the Southwest Slip, had no direct impacts on EFH or other natural habitats because none were present at the site. 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 3.14 (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 occurred during Phase I construction because none of these habitats are present at or near the proposed Project site.

### *Mitigation Measures*

**MM BIO-1** applies to this EFH impact. However, because construction of this alternative (in Phase I) resulted in less Inner Harbor fill than the proposed Project would, fewer mitigation credits apply. Mitigation of the filling of approximately 1.3 acres of Inner Harbor marine habitat (under Phase I, as applied to Alternative 1) requires approximately 0.65 Outer Harbor credits from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation measure fully offsets Alternative 1 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*

Dike placement and fill in the West Basin occurred in Phase I (as applied to Alternative 1). No additional wharf construction would occur. Placement of dike and fill in Phase I caused a loss of 1.3 acres of aquatic habitat, including water column and soft bottom.

The mitigation credits would compensate for the loss of EFH as a result of Alternative 1, leaving no residual impact. No residual impacts would occur for natural habitats, special aquatic sites, or plant communities.

## NEPA Impact Determination

The impacts of this No Project Alternative are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2 in this document).

### *Mitigation Measures*

Mitigation measures are not applicable.

### *Residual Impacts*

A residual impact determination is not applicable.

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

3                   Aside from the removal of four existing cranes and construction of 72 acres of backlands,  
4                   no construction activities on land or in the water would occur for Alternative 1.  
5                   Backlands development and bridge abandonment would not affect wildlife movement or  
6                   migration corridors. Consequently, no wildlife movement/migration corridors would be  
7                   affected by construction activities. None would be affected by the proposed Project  
8                   either.

9                   **CEQA Impact Determination**

10                  Although construction extended beyond the CEQA baseline, no wildlife movement  
11                  or migration corridors were affected by Phase I construction, as applied to  
12                  Alternative 1, either on land or in the water. Because of this, no impacts under  
13                  CEQA would occur.

14                  *Mitigation Measures*

15                  No mitigation is required.

16                  *Residual Impacts*

17                  No residual impacts would occur.

18                  **NEPA Impact Determination**

19                  The impacts of this No Project Alternative are not required to be analyzed under  
20                  NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
21                  Alternative 2 in this document).

22                  *Mitigation Measures*

23                  Mitigation measures are not applicable.

24                  *Residual Impacts*

25                  A residual impact determination is not applicable.

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

28                   Dredging, dike and fill placement, and pile installation that occurred for Berth 100  
29                   construction under Phase I, as applied to Alternative 1, disturbed and removed  
30                   approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I  
31                   (Table 3.3-3). Benthic invertebrates (approximately 0.1 metric ton) living in and on the  
32                   sediments to be dredged or filled adjacent to the berths were lost from being dredged  
33                   and/or covered with dike and fill, but the new dike riprap provided new habitat that has  
34                   been colonized by a diverse assemblage of marine organisms presumably at a higher  
35                   biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and Associates, 2002) than that  
36                   found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and Associates, 2002), based on  
37                   observed biomass of organisms in and on those habitats. Although only a small  
38                   proportion of the soft bottom in the West Basin has been affected by the dredging and  
39                   placement of fill and pile, the loss of benthic community in the West Basin and Harbor is  
40                   considered a significant impact under Alternative 1.

1 During Phase I construction, effects of turbidity and resuspension of sediments  
2 containing contaminants on planktonic organisms were limited to the immediate vicinity  
3 of the dredging.

4 Removal of sediments containing accumulated contaminants through dredging for the  
5 wharf work at Berth 100 has provided benefits to the benthic community in the West  
6 Basin and the Harbor. Temporary disturbances to fish and marine mammals caused by  
7 dredging and wharf construction activities during Phase I (under Alternative 1) but were  
8 not significant.

9 Fish in the water column and on or near the bottom were temporarily disturbed by the  
10 dredging and wharf construction activities (under Phase I) as a result of turbidity, noise,  
11 displacement, and vibration as described for the proposed Project. Effects on fish  
12 populations in the Inner Harbor were short term and localized with no substantial  
13 disruption of local fish communities. Marine mammals, such as sea lions, in the West  
14 Basin at the time of construction could have been temporarily disturbed by construction  
15 activities, but individuals likely avoided the work area. Few, if any, marine mammals are  
16 present in the Project area, based on survey data from 2000 (MEC and Associates, 2002).  
17 Phase I construction activities did not interfere with marine mammal foraging because the  
18 disturbances were in localized areas and large foraging areas remained available to them  
19 elsewhere in the West Basin and throughout the Harbor.

## 20 Wharf and Backland Construction

21 For Alternative 1, construction of the new 1,200-foot wharf at Berth 100 added new rock  
22 dike hard-substrate habitat. Marginal aquatic habitat benefit accrued from the small  
23 amount of new hard substrate created under Alternative 1 due to shading.

24 The construction of wharf and container terminal facilities on the terminal site under  
25 Alternative 1 could have affected biological resources through (1) noise and vibration and  
26 (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving)  
27 would have likely caused most fish and birds to temporarily avoid the immediate  
28 construction area. Fish and bird populations were not adversely affected because the  
29 small number of individuals moving into other areas of the West Basin, the short duration  
30 of the disturbance, and the small area affected did not substantially disrupt West Basin  
31 biological communities. Backland construction had a minimal effect on terrestrial biota  
32 because the species present are non-native and/or adapted to use of developed sites.  
33 Disturbances to marine species were temporary, and the animals present were able to  
34 move to other nearby areas for the duration of the disturbance. Consequently, biological  
35 communities in this industrial area were not substantially disrupted during Phase I  
36 construction.

37 Runoff of pollutants from Alternative 1 backland construction activities was minimized  
38 through use of BMPs (see Section 3.14), and the low concentrations of pollutants that  
39 could have entered Harbor waters did not adversely affect marine organisms.

## 40 Accidents

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

1 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
2 dredging and disposal of the material were minimal during Phase I construction (see  
3 Section 3.14 **Impact WQ-1d**) and did not adversely affect aquatic biota to the degree that  
4 West Basin biological communities were substantially disrupted. Any such spills were  
5 small and cleaned up immediately, resulting in loss of few marine organisms and causing  
6 no adverse community effects. Accidental spills of pollutants during Phase I construction  
7 on land, if any, would have been small because large quantities of such substances are not  
8 to be used during construction. Such spills would have been contained and cleaned up with  
9 no runoff to Harbor waters (see Section 3.14).

## 10 **CEQA Impact Determination**

11 Phase I construction activities of the backlands, as applied to Alternative 1, extended  
12 beyond the CEQA baseline area but did not result in substantial disruption of local  
13 biological communities for the reasons described above. Impacts under CEQA,  
14 therefore, were less than significant. However, the loss of approximately 1.3 acres of  
15 soft-bottom habitat in the West Basin represents a significant impact to the benthic  
16 community. Runoff of pollutants from backland construction activities did not  
17 disrupt biological communities in the West Basin and had only localized, short-term,  
18 less than significant impacts, if any, on marine organisms in the immediate vicinity of  
19 drain outlets due to implementation of runoff control measures that were part of  
20 Phase I construction (e.g., project-specific SWPPP and BMPs such as sediment  
21 barriers and sedimentation basins; see Section 3.14.4.3 for a list of measures).  
22 Accidental spills from equipment during dredging and wharf construction would not  
23 have substantially disrupted local biological communities because spills, if any,  
24 would have been small, contained, and cleaned up immediately. Such spills would  
25 have affected only a few common marine organisms, if any. Thus, only localized  
26 effects that are less than significant occurred during Phase I construction. Accidental  
27 spills during construction on land did not reach Harbor waters due to the  
28 implementation of BMPs, and significant impacts on marine communities did not  
29 occur. No notice to proceed (with Phase I construction) was issued without approval  
30 of the specific SWPPP and BMPs.

### 31 *Mitigation Measures*

32 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
33 detailed description of this measure), and was implemented for Phase I.

### 34 *Residual Impacts*

35 The mitigation credits compensated for the loss of benthic community as a result of  
36 the Phase I, leaving no residual impact.

## 37 **NEPA Impact Determination**

38 The impacts of this No Project Alternative are not required to be analyzed under  
39 NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
40 Alternative 2 in this document).

### 41 *Mitigation Measures*

42 Mitigation measures are not applicable.

1                                    *Residual Impacts*

2                                    A residual impact determination is not applicable.

3                                    **Impact BIO-5: A permanent loss of marine habitat would occur.**

4                                    Dike placement and fill in the West Basin occurred in Phase I (as applied to  
5                                    Alternative 1). No additional wharf construction would occur. Placement of dike and fill  
6                                    in Phase I caused a loss of 1.3 acres of aquatic habitat, including water column and soft  
7                                    bottom.

8                                    **CEQA Impact Determination**

9                                    Alternative 1 construction occurred beyond the CEQA baseline area into the West  
10                                    Basin, and the placement of dike and fill near Berth 100 under Phase I, as applied to  
11                                    Alternative 1, caused a permanent loss of 1.3 acres of aquatic habitat in the  
12                                    Los Angeles Inner Harbor (southern West Basin) as described above. This impact is  
13                                    considered significant under CEQA.

14                                    *Mitigation Measures*

15                                    **MM BIO-1** applies to this EFH impact. However, because construction of Phase I  
16                                    (as applied to this alternative) resulted in less Inner Harbor fill than the proposed  
17                                    Project would, fewer mitigation credits apply. Mitigation of the filling of  
18                                    approximately 1.3 acres of Inner Harbor marine habitat requires approximately  
19                                    0.65 Outer Harbor credits from either the Bolsa Chica Mitigation Agreement or the  
20                                    Outer Harbor Mitigation Bank. This mitigation measure fully offsets Alternative 1  
21                                    impacts to EFH sustainable fisheries and loss of general marine habitat (see **Impact**  
22                                    **BIO-5**). No mitigation is required for impacts to natural habitats, special aquatic  
23                                    sites, or plant communities.

24                                    *Residual Impacts*

25                                    Mitigation was applied prior to Phase I construction, and no residual impacts  
26                                    occurred.

27                                    **NEPA Impact Determination**

28                                    The impacts of this No Project Alternative are not required to be analyzed under  
29                                    NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
30                                    Alternative 2 in this document).

31                                    *Mitigation Measures*

32                                    Mitigation measures are not applicable.

33                                    *Residual Impacts*

34                                    A residual impact determination is not applicable.

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

39                                    Operation of the existing backland facilities would not adversely affect any special-status  
40                                    species as described for the proposed Project. Similar to the CEQA and NEPA baseline

1 conditions, Alternative 1 would not result in additional ship calls (existing wharf  
2 activities would cease to operate).

### 3 **CEQA Impact Determination**

4 Terminal activity under Alternative 1 would be greater than the CEQA baseline;  
5 however, operational activities would result in no loss of individuals or habitat for  
6 rare, threatened, endangered, protected, or special concern species, or Species of  
7 Special Concern. Because no ship calls would occur under Alternative 1, marine  
8 mammals would experience no impacts from underwater sound from vessels;  
9 therefore, impacts would be less than significant under CEQA.

#### 10 *Mitigation Measures*

11 No mitigation is required.

#### 12 *Residual Impacts*

13 Residual impacts would be less than significant.

### 14 **NEPA Impact Determination**

15 The impacts of this No Project Alternative are not required to be analyzed under  
16 NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
17 Alternative 2 in this document).

#### 18 *Mitigation Measures*

19 Mitigation measures are not applicable.

#### 20 *Residual Impacts*

21 A residual impact determination is not applicable.

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

### 26 **Essential Fish Habitat**

27 Operations under Alternative 1 would not affect the EFH because terminal operations  
28 would be confined to the backlands, where no EFH is present. Runoff from the new  
29 facilities would not substantially reduce or alter EFH in Harbor waters because water  
30 quality standards for protection of marine life would not be exceeded (see Section 3.14).  
31 In addition, because this alternative does not result in any ship calls, it would not affect  
32 the in-water environment.

### 33 **Natural Habitat or Plant Community**

34 As described in **Impact BIO-2a** for the proposed Project, no SEAs, natural plant  
35 communities, wetlands, or mudflats are present in the vicinity of the Project site;  
36 therefore, Alternative 1 operations would not affect such resources.

1                   **CEQA Impact Determination**

2                   Terminal activity under the proposed Project would be greater than the CEQA  
3                   baseline; however, operational activities would not substantially affect or alter EFH,  
4                   and less than significant impacts under CEQA would occur. No SEAs, natural plant  
5                   communities, wetlands, or mudflats are present, resulting in no impacts under CEQA.

6                   *Mitigation Measures*

7                   No mitigation is required.

8                   *Residual Impacts*

9                   No significant residual impacts to EFH and no impacts to SEAs, natural plant  
10                  communities, wetlands, or mudflats would occur.

11                  **NEPA Impact Determination**

12                  The impacts of this No Project Alternative are not required to be analyzed under  
13                  NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
14                  Alternative 2 in this document).

15                  *Mitigation Measures*

16                  Mitigation measures are not applicable.

17                  *Residual Impacts*

18                  A residual impact determination is not applicable.

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

21                  As described in **Impact BIO-3a** for the proposed Project, no known migration corridors  
22                  for terrestrial wildlife or aquatic species are present in the Harbor. Migration by bird  
23                  species that visit or pass through the area would not be affected by any changes in  
24                  terminal operations because no new structures would be present that could impede their  
25                  movement. Alternative 1 would not result in ship calls, so no vessel-related impacts  
26                  could occur.

27                  **CEQA Impact Determination**

28                  Although terminal operations would extend over a larger area than the CEQA  
29                  baseline, no wildlife movement or migration corridors would be affected by  
30                  Alternative 1, resulting in no impacts under CEQA.

31                  *Mitigation Measures*

32                  No mitigation is required.

33                  *Residual Impacts*

34                  No residual impacts would occur.

1                           **NEPA Impact Determination**

2                           The impacts of this No Project Alternative are not required to be analyzed under  
3                           NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
4                           Alternative 2 in this document).

5                           *Mitigation Measures*

6                           Mitigation measures are not applicable.

7                           *Residual Impacts*

8                           A residual impact determination is not applicable.

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

11                           Under Alternative 1, there would be only backland operations, and no new vessels would  
12                           be operated in Harbor waters; therefore, no disruption of local biological communities  
13                           would occur.

14                           Similar to the proposed Project, runoff of pollutants to the Harbor from the terminal  
15                           backlands under Alternative 1 would not significantly affect local biological communities  
16                           in Harbor waters.

17                           **CEQA Impact Determination**

18                           Although terminal operations would extend over a larger area than the CEQA  
19                           baseline, operation of terminal backlands under Alternative 1 would not disrupt local  
20                           biological communities, either directly or indirectly through runoff of contaminants.  
21                           Therefore, Alternative 1 would not result in significant impacts under CEQA.

22                           *Mitigation Measures*

23                           No mitigation is required.

24                           *Residual Impacts*

25                           Residual impacts would be less than significant.

26                           **NEPA Impact Determination**

27                           The impacts of this No Project Alternative are not required to be analyzed under  
28                           NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
29                           Alternative 2 in this document).

30                           *Mitigation Measures*

31                           Mitigation measures are not applicable.

32                           *Residual Impacts*

33                           A residual impact determination is not applicable.

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

4                   Under Alternative 1, there would be only backland operations, and no new vessels would  
5                   be operated in Harbor waters; therefore, the introduction of non-native species into  
6                   Harbor waters from vessels or ballast water releases would not occur.

7                   **CEQA Impact Determination**

8                   Although Alternative 1 would have greater operational activity than the CEQA  
9                   baseline, Alternative 1 operations would not have the potential to introduce non-  
10                  native species into the Harbor via ballast water or vessel hulls because no ship calls  
11                  would occur; therefore, disruptions to local biological communities would not occur.  
12                  Consequently, no impacts would occur under CEQA.

13                  *Mitigation Measures*

14                  No mitigation is required

15                  *Residual Impacts*

16                  No residual impacts would occur.

17                  **NEPA Impact Determination**

18                  The impacts of this No Project Alternative are not required to be analyzed under  
19                  NEPA. NEPA requires the analysis of a No Federal Action Alternative (see  
20                  Alternative 2 in this document).

21                  *Mitigation Measures*

22                  Mitigation measures are not applicable.

23                  *Residual Impacts*

24                  A residual impact determination is not applicable.

25                  **3.3.4.3.2.2 Alternative 2 – No Federal Action**

26                  Alternative 2 would utilize the terminal site constructed as part of Phase I for container  
27                  storage and would increase the backland area to 117 acres. Therefore, the Phase I  
28                  construction activities are included under Alternative 2 even though the in-water Phase I  
29                  elements would not be used (Phase I dike, fill, and the wharf would be abandoned).

30                  Under Alternative 2, Phase I backlands construction, dike and fill, and wharf and bridge  
31                  construction are included, but no further dredging, filling, new wharf construction, or  
32                  new backlands or bridge development would occur.

33                  The No Federal Action Alternative (Alternative 2) would not include any new federal  
34                  permits (aside from those issued for Phase I construction). Under Alternative 2, there  
35                  would be a Port action to further develop backlands at the Project site (does not require a  
36                  federal action) on up to 117 acres. The 117-acre backlands would be utilized by the  
37                  Berth 121-131 Container Terminal for supplemental container storage. Because the  
38                  Berth 121-131 Terminal is berth limited, use of Berths 97-109 would not result in  
39                  additional ship, truck, or rail trips at the Berth 121-131 terminal. The existing wharves  
40                  (Berths 100-102) would cease to be used for ship berthing and ship loading and

1 unloading operations, and the four existing A-frame cranes installed during Phase I  
2 would be removed. In addition, the bridge constructed during Phase I would be  
3 abandoned. The 1.3 acres of fill added to waters of the U.S. during construction of  
4 Phase I of the proposed Project (as allowed under the ASJ and under USACE permit),  
5 which was fully mitigated by applying mitigation bank credit offsets and in-water  
6 construction BMPs, would remain in place under Alternative 2. No further NEPA action  
7 would occur under Alternative 2.

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

12 Under Alternative 2, the site would be developed with 117 acres of backlands. In  
13 addition, the four existing cranes will be removed. There are no listed endangered,  
14 threatened, or protected species on the Project site. Because of this, neither further  
15 backland construction nor abandonment of the bridge would affect threatened or  
16 endangered species or their habitat. In-water construction under Phase I would be  
17 applied to Alternative 2.

18 Anticipated impacts to threatened or endangered species or their habitat caused by  
19 dredging, dike placement, fill, pile installation, and wharf improvements under  
20 Alternative 2 would be the same as for Phase I of the proposed Project and would be  
21 unlikely to affect such resources through temporary increases in noise, vibration, and  
22 turbidity, as well as the potential for displacement of individuals from the work area as  
23 described in **Impact BIO-1a** for the proposed Project. No critical habitat for any  
24 federally listed species is present in the Alternative 2 Project area. Foraging by the  
25 California least tern, California brown pelican, or any other special-status species in  
26 Table 3.3-1 could continue during construction with no adverse effects to the species.  
27 Individuals using the West Basin could use other areas in the Harbor if they choose to  
28 avoid the immediate construction work area. No individuals would be lost, and their  
29 populations would not be adversely affected by construction activities.

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

33 Transport of rock for the wharf work at Berth 100 is the same as for the proposed Project.

34 The USACE has made a “no effect” determination for federally listed species in the  
35 Project area in accordance with requirements of Section 7 of the ESA.

36 **CEQA Impact Determination**

37 Although Alternative 2 construction would extend beyond the CEQA baseline area,  
38 construction activities on land would not. In-water construction from Phase I, as  
39 applied to Alternative 2, did not result in a loss of individuals or habitat for rare,  
40 threatened, endangered, protected, or candidate species, or Species of Special  
41 Concern. Sound pressure waves from construction activities in the water did not  
42 injure marine mammals. No critical habitat for federally listed species is present, and  
43 no impacts would occur. Impacts, therefore, would be less than significant under  
44 CEQA.

1                    *Mitigation Measures*

2                    No mitigation is required.

3                    *Residual Impacts*

4                    Residual impacts under CEQA would be less than significant.

5                    **NEPA Impact Determination**

6                    As described above, Phase I in-water construction activities as applied to  
7                    Alternative 2 did not result in loss of individuals or habitat for rare, threatened,  
8                    endangered, protected, or candidate species, or Species of Special Concern, and  
9                    sound pressure waves from construction activities in the water would not injure  
10                    marine mammals; therefore, impacts would be less than significant under NEPA.  
11                    Backlands under Alternative 2 would be the same as the backland acreage under the  
12                    NEPA baseline (both 117 acres), and no rare, threatened, endangered, protected, or  
13                    candidate species, or Species of Special Concern or their habitat are present on the  
14                    Project site. Consequently, construction activities on the backlands under Phase I (as  
15                    applied to Alternative 2) and the additional backland construction would not result in  
16                    significant impacts under NEPA.

17                    *Mitigation Measures*

18                    No mitigation measures are necessary under NEPA.

19                    *Residual Impacts*

20                    Residual impacts under NEPA would be less than significant.

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

25                    Under Alternative 2, the site would be developed with 117 acres of backlands. In-water  
26                    and backlands construction under Phase I would be applied to Alternative 2. In addition,  
27                    the four existing cranes would be removed.

28                    Construction of terminal improvements under Phase I, as applied to Alternative 2, did not  
29                    affect FMP species that do not occur in the West Basin and had minimal effects on those  
30                    that are rare or uncommon, such as Pacific mackerel and English sole (MEC and  
31                    Associates, 2002) because few, if any, individuals frequent the disturbance area. Effects  
32                    of dredging, dike and fill placement, pile installations, and wharf construction at  
33                    Berth 100 on FMP species are similar to those described for the proposed Project. The  
34                    loss of water column habitat due to placement of fill (1.3 acres) in Phase I resulted in a  
35                    loss of habitat and food sources for the FMP species that use the southern West Basin.  
36                    The loss of habitat would not likely have a measurable effect on sustainable fisheries  
37                    because it would not measurably reduce the stocks of these species in the areas where  
38                    they are harvested (primarily offshore in the open ocean). Loss of habitat for pelagic fish  
39                    species that might use the West Basin, particularly northern anchovy, is considered a  
40                    substantial effect that would be mitigated in accordance with established mitigation  
41                    requirements, as described in **Impact BIO-5**.

42                    Construction activities on upland areas under Phase I, as applied to Alternative 2  
43                    (including the single bridge across the Southwest Slip) had no direct effects on EFH,

1 which is located in the water. The additional backland development would similarly not  
2 affect an EFH. Runoff of sediments and contaminants from such construction, however,  
3 could have entered or could enter Harbor waters; however, as discussed in Section 3.14,  
4 implementation of sediment control measures (e.g., sediment barriers and sedimentation  
5 basins) and BMPs minimize the impacts of such runoff.

6 No kelp or eelgrass beds are present in the Alternative 2 area, and those beds in other  
7 parts of the Harbor were not affected by construction activities for Phase I, as applied to  
8 Alternative 1, due to their distance from the work area. No designated SEAs, including  
9 the least tern nesting site on Pier 400, were affected by construction under this alternative  
10 because no Phase I construction took place at or near this SEA. As described for the  
11 proposed Project, no wetlands or mudflats are present in the Alternative 2 project area,  
12 and those in other areas of the Harbor were not affected by Phase I construction activities  
13 in the West Basin due to distance from the Alternative 2 project site (more than 3 miles).

### 14 **CEQA Impact Determination**

15 Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to  
16 Alternative 2) resulted in a permanent loss of Inner Harbor marine habitat and a  
17 reduction of EFH in the West Basin, a significant impact under CEQA. Although  
18 upland areas under this alternative are greater than those of the CEQA baseline,  
19 construction activities on the backlands, including the bridge over the Southwest Slip,  
20 have no direct impacts on EFH or other natural habitats because none were or are  
21 present at the site. Indirect impacts through runoff of sediments during storm events  
22 would be less than significant because such runoff would be controlled as described  
23 for water quality in Section 3.14 (e.g., project-specific SWPPP with BMPs, such as  
24 sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds,  
25 eelgrass beds, wetlands, or mudflats occurred during Phase I construction or would  
26 occur during subsequent backland construction because none of these habitats are  
27 present at or near the proposed Project site.

### 28 *Mitigation Measures*

29 **MM BIO-1** applies to this EFH impact. However, because construction of this  
30 alternative (in Phase I) resulted in less Inner Harbor fill than the proposed Project  
31 would, fewer mitigation credits apply. Mitigation of the filling of approximately  
32 1.3 acres of Inner Harbor marine habitat (under Phase I, as applied to Alternative 2)  
33 requires approximately 0.65 Outer Harbor credits from either the Bolsa Chica  
34 Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation  
35 measure fully offsets Alternative 2 impacts to EFH sustainable fisheries and loss of  
36 general marine habitat (see **Impact BIO-5**). No mitigation is required for impacts to  
37 natural habitats, special aquatic sites, or plant communities.

### 38 *Residual Impacts*

39 The mitigation credits that were used for Phase I construction compensated for the  
40 loss of EFH resulting from Phase I construction as applied to Alternative 2, leaving  
41 no residual impact. No residual impacts occurred for natural habitats, special aquatic  
42 sites, or plant communities.

### 43 **NEPA Impact Determination**

44 Dike and fill placement in the southern West Basin under Phase I, as applied to  
45 Alternative 2, resulted in a permanent loss of 1.3 acres of Inner Harbor marine habitat

1 and a reduction of EFH in the West Basin, which is considered to be a significant  
2 impact under NEPA. Impacts are less than significant for other in-water construction  
3 activities (e.g., dredging and wharf construction). Runoff of sediments from the  
4 project backlands during storm events is less than significant because such runoff  
5 was controlled as described for water quality in Section 3.14 (e.g., project-specific  
6 SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts  
7 to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats occurred because none are  
8 present at or near the Project site. Backland construction activities under  
9 Alternative 2 would occur on the same area as the NEPA baseline (both 117 acres),  
10 and construction BMPs would further minimize impacts; consequently, backland  
11 construction would not result in significant impacts under NEPA.

12 Under this alternative, no further development would occur in the in-water proposed  
13 Project area (i.e., no dredging, dike or fill placement, pile installation, or wharf  
14 construction).

#### 15 *Mitigation Measures*

16 **MM BIO-1** applies to this EFH impact and was implemented during Phase I  
17 construction. No additional mitigation measures are necessary under NEPA because  
18 no further in-water construction would occur.

#### 19 *Residual Impacts*

20 No residual impacts would occur under NEPA.

### 21 **Impact BIO-3a: Construction activities would not interfere with** 22 **wildlife movement/migration corridors.**

23 Under Alternative 2, the site would be developed with 117 acres of backlands. In-water  
24 and backlands construction under Phase I would be applied to Alternative 2. In addition,  
25 the four existing cranes will be removed. There are no wildlife movement or migration  
26 corridors on the Project site. Phase I construction, backlands construction, and bridge or  
27 dike/fill abandonment would not affect wildlife movement or migration corridors.

### 28 **CEQA Impact Determination**

29 Although construction would extend beyond the CEQA baseline, no wildlife  
30 movement/migration corridors would be affected by Alternative 2, and no impacts  
31 would occur under CEQA.

#### 32 *Mitigation Measures*

33 No mitigation is required.

#### 34 *Residual Impacts*

35 No residual impacts would occur.

### 36 **NEPA Impact Determination**

37 In-water and backland construction under Phase I (including the Phase I bridge over  
38 the Southwest Slip) would be applied to this alternative. Additional backland  
39 construction would occur to increase backland acreage to 117 acres, which is the  
40 same as the NEPA baseline. However, there are no wildlife migration corridors  
41 either on the terminal site or in the adjacent in-water areas. Therefore, potential

1 impacts under NEPA to wildlife migrations corridors would not occur under  
2 Alternative 2.

### 3 *Mitigation Measures*

4 No mitigation measures are required.

### 5 *Residual Impacts*

6 No residual impacts would occur.

## 7 **Impact BIO-4a: Construction activities would not substantially** 8 **disrupt local biological communities.**

9 Under Alternative 2, the site would be developed with 117 acres of backlands. In-water  
10 and backlands construction under Phase I would be applied to Alternative 2. In addition,  
11 the four existing cranes would be removed.

12 Dredging, dike and fill placement, and pile installation that occurred for Berth 100  
13 construction under Phase I, as applied to Alternative 2, disturbed and removed  
14 approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I  
15 (Table 3.3-3). Although only a small proportion of the soft bottom in the West Basin has  
16 been affected by the Phase I dredging and fill, and pile placement, the loss of benthic  
17 community in the West Basin and Harbor is considered a significant impact under  
18 Alternative 2.

19 During Phase I construction, effects of turbidity and resuspension of sediments  
20 containing contaminants on planktonic organisms were limited to the immediate vicinity  
21 of the dredging.

22 Removal of sediments containing accumulated contaminants through dredging for the  
23 wharf work at Berth 100 has provided benefits to the benthic community in the West  
24 Basin and the Harbor. Temporary disturbances to fish and marine mammals caused by  
25 dredging and wharf construction activities occurred during Phase I (under Alternative 2)  
26 but were not significant.

27 Fish in the water column and on or near the bottom were temporarily disturbed by the  
28 dredging and wharf construction activities (under Phase I) as a result of turbidity, noise,  
29 displacement, and vibration as described for the proposed Project. Effects on fish  
30 populations in the Inner Harbor were short term and localized with no substantial  
31 disruption of local fish communities. Marine mammals, such as sea lions, in the West  
32 Basin at the time of construction could have been temporarily disturbed by construction  
33 activities, but individuals likely avoided the work area. Few, if any, marine mammals are  
34 present in the Project area, based on survey data from 2000 (MEC and Associates, 2002).  
35 Phase I construction activities did not interfere with marine mammal foraging because the  
36 disturbances were in localized areas and large foraging areas remained available to them  
37 elsewhere in the West Basin and throughout the Harbor.

## 38 **Wharf and Backland Construction**

39 Under Alternative 2, as for the proposed Project, construction of the new 1,200-foot  
40 wharf at Berth 100 under Phase I added new rock dike hard-substrate habitat. Marginal  
41 aquatic habitat benefit accrued from the small amount of new hard substrate created  
42 under Alternative 2 due to shading.

1 The construction of wharf and container terminal facilities on the terminal site under  
2 Alternative 2 could have affected biological resources through (1) noise and vibration and  
3 (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving)  
4 would have likely caused most fish and birds to temporarily avoid the immediate  
5 construction area. Fish and bird populations were not adversely affected because the  
6 small number of individuals moving into other areas of the West Basin, the short duration  
7 of the disturbance, and the small area affected did not substantially disrupt West Basin  
8 biological communities. Phase I backland construction had, and additional backland  
9 construction would have, a minimal effect on terrestrial biota because the species present  
10 are non-native and/or adapted to use of developed sites. Disturbances to marine species  
11 were temporary, and the animals present were able to move to other nearby areas for the  
12 duration of the disturbance. Consequently, biological communities in this industrial area  
13 were not substantially disrupted during Phase I construction and would not be  
14 substantially affected during subsequent backlands construction.

15 Runoff of pollutants from Alternative 2 backland construction was minimized through  
16 use of BMPs (see Section 3.14), and the low concentrations of pollutants that could have  
17 entered Harbor waters did not adversely affect marine organisms. Similarly, additional  
18 backland construction would not adversely affect marine organisms.

### 19 **Accidents**

20 Accidents on land could have resulted in runoff of pollutants; however, levels that could  
21 adversely affect aquatic biota near the point of discharge to the Harbor were unlikely due  
22 to containment, rapid cleanup, and implementation of runoff control measures as  
23 described in **Impact WQ-1d**.

24 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
25 dredging and disposal of the material were minimal during Phase I construction (see  
26 Section 3.14 **Impact WQ-1d**) and did not adversely affect aquatic biota to the degree that  
27 West Basin biological communities were substantially disrupted. Any such spills were  
28 small and were cleaned up immediately, resulting in loss of few marine organisms and  
29 causing no adverse community effects. Accidental spills, if any, of pollutants during  
30 Phase I construction on land or subsequent backland construction, would have been small  
31 or would be small because large quantities of such substances are not to be used during  
32 construction. Such spills would be contained and cleaned up with no runoff to Harbor  
33 waters (see Section 3.14).

### 34 **CEQA Impact Determination**

35 Phase I construction activities of the backlands, as applied to Alternative 2 extended  
36 beyond the CEQA baseline area but did not result in substantial disruption of local  
37 biological communities for the reasons described above; therefore, impacts under  
38 CEQA were less than significant. Runoff of pollutants from backland construction  
39 activities did not disrupt biological communities in the West Basin and had only  
40 localized, short-term, less than significant impacts, if any, on marine organisms in the  
41 immediate vicinity of drain outlets due to implementation of runoff control measures  
42 that were part of Phase I construction (e.g., project-specific SWPPP and BMPs such  
43 as sediment barriers and sedimentation basins; see Section 3.14.4.3 for a list of  
44 measures). Accidental spills during construction on land did not reach Harbor waters  
45 due to the implementation of BMPs, and significant impacts on marine communities  
46 did not occur. Similarly, subsequent backland construction would not significantly  
47 affect local biological communities.

1 The loss of approximately 1.3 acres of soft-bottom habitat in the West Basin under  
2 Phase I represents a significant impact to the benthic community.

3 Accidental spills from equipment during dredging and wharf construction would not  
4 have substantially disrupted local biological communities because spills, if any,  
5 would have been small, contained, cleaned up immediately, and would have affected  
6 only a few common marine organisms, if any. Thus, only localized effects that are  
7 less than significant occurred during Phase I construction. No notice to proceed  
8 (with Phase I construction) was issued without approval of the specific SWPPP and  
9 BMPs.

#### 10 *Mitigation Measures*

11 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
12 detailed description of this measure), and was implemented for Phase I.

#### 13 *Residual Impacts*

14 The mitigation credits compensated for the loss of benthic community as a result of  
15 the Phase I, leaving no residual impact.

### 16 **NEPA Impact Determination**

17 In-water construction in the West Basin under Alternative 2 resulted in the loss of  
18 benthic communities, as described above, and impacts, therefore, were significant. In  
19 addition, no local biological communities on the upland areas of the Project site  
20 could have been adversely affected by backland construction during Phase I or during  
21 subsequent backland construction, and no upland impacts to biological communities  
22 would occur. Consequently, Phase I construction, as applied to Alternative 2, would  
23 have resulted in significant biological resource impacts under NEPA.

#### 24 *Mitigation Measures*

25 **MM BIO-1** would apply for benthic community impacts (see **Impact Bio-5** for  
26 detailed description of this measure) and was implemented for Phase I.

#### 27 *Residual Impacts*

28 The mitigation credits compensated for the loss of benthic community as a result of  
29 Phase I, leaving no residual impact.

### 30 **Impact BIO-5: A permanent loss of marine habitat would occur.**

31 Dike placement and fill in the West Basin occurred in Phase I (as applied to  
32 Alternative 2). No additional wharf or in-water construction would occur. Placement of  
33 dike and fill in Phase I caused a loss of 1.3 acres of aquatic habitat, including water  
34 column and soft bottom.

### 35 **CEQA Impact Determination**

36 Phase I construction, as applied to Alternative 2 construction, occurred beyond the  
37 CEQA baseline area into the West Basin and the placement of dike and fill near  
38 Berth 100 caused a permanent loss of 1.3 acres of aquatic habitat in the Los Angeles  
39 Inner Harbor (southern West Basin). As described above, this impact is considered  
40 significant under CEQA.

1                    *Mitigation Measures*

2                    **MM BIO-1** applies to this EFH impact. However, because construction of this  
3 alternative (Phase I) resulted in less Inner Harbor fill than the proposed Project would,  
4 fewer mitigation credits apply. Mitigation of the fill of approximately 1.3 acres of  
5 Inner Harbor marine habitat requires approximately 0.65 Outer Harbor credits from  
6 either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank.  
7 This mitigation measure fully offsets Alternative 2 impacts to EFH sustainable  
8 fisheries and loss of general marine habitat (see **Impact BIO-5**). No mitigation is  
9 required for impacts to natural habitats, special aquatic sites, or plant communities.

10                   *Residual Impacts*

11 Mitigation was applied prior to Phase I construction, and no residual impacts would  
12 remain.

13                   **NEPA Impact Determination**

14 Under Alternative 2, construction of a dike and fill in the West Basin in Phase I, as  
15 applied to Alternative 2, caused a permanent loss of 1.3 acres of marine habitat in the  
16 Los Angeles Inner Harbor, as described above, and this impact is considered  
17 significant under NEPA.

18                   *Mitigation Measures*

19                   **MM BIO-1**, as described under the CEQA Impact Determination, applies to this  
20 EFH impact.

21                   *Residual Impacts*

22 Mitigation was applied prior to Phase I construction, and no residual impacts would  
23 remain.

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

28 Operation of the backland facilities under Alternative 2 would not adversely affect any  
29 special-status species because none are present on the Project site. As with the CEQA  
30 and NEPA baseline conditions, Alternative 2 would not result in additional ship calls.

31                   **CEQA Impact Determination**

32 Terminal activity under Alternative 2 (backland operation only) would be greater  
33 than the CEQA baseline; however, operational activities would result in no loss of  
34 individuals or habitat for rare, threatened, endangered, protected, or special concern  
35 species, or Species of Special Concern because none are present on the terminal site,  
36 and terminal operations would not affect the in-water environment. Therefore,  
37 Alternative 2 operations would not result in significant impacts to such resources  
38 under CEQA.

39                   *Mitigation Measures*

40 No mitigation is required.

1 *Residual Impacts*

2 Residual impacts would be less than significant.

3 **NEPA Impact Determination**

4 Under this alternative, no operations would occur in the in-water area (i.e., no ship  
5 calls). In addition, backland operations under Alternative 2 (supplemental backlands  
6 for handling of 632,500 TEUs) would be the same as under the NEPA baseline.  
7 Therefore, potential impacts under NEPA would not occur because there would be no  
8 net change in the environmental conditions between Alternative 2 operations and the  
9 NEPA baseline.

10 *Mitigation Measures*

11 No mitigation measures are required.

12 *Residual Impacts*

13 No residual impacts would occur.

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

18 **Essential Fish Habitat**

19 Operations under Alternative 2 would not affect the EFH because terminal operations  
20 would be confined to the backlands, where no EFH is present. Runoff from the new  
21 facilities would not substantially reduce or alter EFH in Harbor waters because water  
22 quality standards for protection of marine life would not be exceeded (see Section 3.14).  
23 In addition, because this alternative does not result in any ship calls, it would not affect  
24 the in-water environment.

25 **Natural Habitat or Plant Community**

26 As described in **Impact BIO-2a** for the proposed Project, no SEAs, natural plant  
27 communities, wetlands, eelgrass, or mudflats are present at the Project site that could be  
28 affected by Alternative 2 operations. Thus, these habitats would not be affected by  
29 backland activities on the Project site.

30 **CEQA Impact Determination**

31 Terminal activity under the proposed Project would be greater than the CEQA  
32 baseline; however, operational activities would not substantially affect or alter EFH,  
33 and no SEAs, natural plant communities, wetlands, or eelgrass are present at the  
34 Project site, and the mudflats along the Main Channel would not be affected by  
35 project-related vessel traffic. As a consequence, significant impacts would not occur  
36 under CEQA.

37 *Mitigation Measures*

38 No mitigation is required.

1 *Residual Impacts*

2 No significant residual impacts to EFH and no impacts to SEAs, natural plant  
3 communities, wetlands, eelgrass, or mudflats would occur.

4 **NEPA Impact Determination**

5 Under this alternative, no terminal operations would occur in the in-water proposed  
6 Project area (i.e., no ship calls). In addition, backland operations under Alternative 2  
7 (supplemental backlands for handling of 632,500 TEUs) would be the same as under  
8 the NEPA baseline. Therefore, potential impacts under NEPA would not occur  
9 because there would be no net change in the environmental conditions between  
10 Alternative 2 operations and the NEPA baseline.

11 *Mitigation Measures*

12 No mitigation measures are required.

13 *Residual Impacts*

14 No residual impacts would occur.

15 **Impact BIO-3b: Operation of Alternative 2 facilities would not**  
16 **interfere with wildlife movement/migration corridors.**

17 As described in **Impact BIO-3a** for the proposed Project, no known migration corridors  
18 for terrestrial wildlife or aquatic species are present in the Harbor. Migration by bird  
19 species that visit or pass through the area would not be affected by any changes in  
20 terminal operations because no new structures would be present that could impede their  
21 movement. Alternative 2 would not result in ship calls, so no vessel-related impacts  
22 could occur.

23 **CEQA Impact Determination**

24 Although terminal operations under Alternative 2 would extend over a larger area  
25 than the CEQA baseline, no wildlife movement or migration corridors would be  
26 affected by Alternative 2, resulting in no impacts under CEQA.

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 No residual impacts would occur.

31 **NEPA Impact Determination**

32 Under this alternative, no terminal operations would occur in the in-water proposed  
33 Project area (i.e., no ship calls). In addition, backland operations under Alternative 2  
34 (supplemental backlands for handling of 632,500 TEUs) would be the same as under  
35 the NEPA baseline. Therefore, potential impacts under NEPA would not occur  
36 because there would be no net change in the environmental conditions between  
37 Alternative 2 operations and the NEPA baseline.

38 *Mitigation Measures*

39 No mitigation measures are required.

1 *Residual Impacts*

2 No residual impacts would occur.

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

5 Under Alternative 2, there would be only backland operations, and no new vessels would  
6 be operated in Harbor waters; therefore, no disruption of local marine biological  
7 communities would occur.

8 Similar to the proposed Project, runoff of pollutants to the Harbor from the terminal  
9 backlands under Alternative 2 would not significantly affect local biological communities  
10 in Harbor waters.

11 **CEQA Impact Determination**

12 Although terminal operations under Alternative 2 would extend over a larger area  
13 than the CEQA baseline, operation of terminal backlands under Alternative 2 would  
14 not disrupt local biological communities, either directly or indirectly through runoff  
15 of contaminants. Therefore, Alternative 2 operations would not result in significant  
16 impacts under CEQA.

17 *Mitigation Measures*

18 No mitigation is required.

19 *Residual Impacts*

20 Residual impacts would be less than significant.

21 **NEPA Impact Determination**

22 Under this alternative, no terminal operations would occur in the in-water proposed  
23 Project area (i.e., no ship calls). In addition, backland operations under Alternative 2  
24 (supplemental backlands for handling of 632,500 TEUs) would be the same as under  
25 the NEPA baseline. Therefore, potential impacts under NEPA would not occur  
26 because there would be no net change in the environmental conditions between  
27 Alternative 2 operations and the NEPA baseline.

28 *Mitigation Measures*

29 No mitigation measures are required.

30 *Residual Impacts*

31 No residual impacts would occur.

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

35 Under Alternative 2, there would be only backland operations, and no new vessels would  
36 be operated in Harbor waters. Therefore, the introduction of non-native species into  
37 Harbor waters from vessels or ballast water releases would not occur.

## CEQA Impact Determination

Although Alternative 2 would have greater operational activity than the CEQA baseline, Alternative 2 operations would not have the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls; therefore, disruptions to local biological communities would not occur. Consequently, no impact would occur under CEQA.

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

No residual impacts would occur.

## NEPA Impact Determination

Under this alternative, no terminal operations would occur in the in-water proposed Project area (i.e., no ship calls). In addition, backland operations under Alternative 2 (supplemental backlands for handling of 632,500 TEUs) would be the same as under the NEPA baseline. Therefore, potential impacts under NEPA would not occur because there would be no net change in the environmental conditions between Alternative 2 operations and the NEPA baseline.

### *Mitigation Measures*

No mitigation measures are required.

### *Residual Impacts*

No residual impacts would occur.

### **3.3.4.3.2.3 Alternative 3 – Reduced Fill: No New Wharf Construction at Berth 102**

Alternative 3 would develop a 142-acre container terminal on the Project but with reduced wharf length. Under Alternative 3, only the Berth 100 wharves would be constructed for a total length of 1,575 feet (1,200 feet in Phase I and 375 feet in Phase III). Alternative 3 would construct the two bridges across the Southwest Slip and require the relocation of the Catalina Express Terminal. The container terminal under Alternative 3 would handle approximately 936,000 TEUs annually and accommodate up to 130 annual ship calls.

### **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.**

Anticipated impacts to threatened or endangered species or their habitat from dredging, dike placement, fill, pile installation, and wharf improvements would be the same as for the proposed Project and would be unlikely to affect such resources 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 3 area. Foraging by the California least tern, California brown pelican, or any other special-status species in Table 3.3-1 could continue during construction with no adverse effects to the

1 species. Individuals using the West Basin could use other areas in the Harbor if they  
2 choose to avoid the immediate construction work area. No individuals would be lost, and  
3 their populations would not be adversely affected by construction activities.

4 Sound pressure waves in the water caused by pile driving would have the same potential  
5 to affect the hearing of marine mammals (sea lions) swimming in the West Basin as  
6 described for the proposed Project. However, studies on a related pinniped species  
7 indicated no harm to nearby individuals or any change in their behavior in regards to their  
8 distribution in the immediate area of the disturbance (Blackwell et al., 2004).

9 Transport of rock for the wharf work at Berth 100 and its south extension would be the  
10 same as for the proposed Project. Thus, the potential for effects on marine mammals  
11 would be similar to the proposed Project.

12 The USACE has made a “no effect” determination for federally listed species in the area  
13 in accordance with requirements of Section 7 of the ESA.

#### 14 **CEQA Impact Determination**

15 Although Project construction would extend beyond the CEQA baseline area, as  
16 described above, construction activities on land and in the water would result in no  
17 loss of individuals or habitat for rare, threatened, endangered, protected, or candidate  
18 species, or Species of Special Concern. Sound pressure waves from construction  
19 activities in the water would not injure marine mammals. Impacts, therefore, would  
20 be less than significant under CEQA. No critical habitat for federally listed species is  
21 present, and no impacts would occur.

#### 22 *Mitigation Measures*

23 No mitigation is required.

#### 24 *Residual Impacts*

25 Residual impacts would be less than significant.

#### 26 **NEPA Impact Determination**

27 As described above, in-water construction activities would result in no loss of  
28 individuals or habitat for rare, threatened, endangered, protected, or candidate species,  
29 or Species of Special Concern, and sound pressure waves from construction activities  
30 in the water would not injure marine mammals; therefore, impacts would be less than  
31 significant under NEPA. Although backlands under Alternative 3 would be larger  
32 than under the NEPA baseline (by 25 acres), no rare, threatened, endangered,  
33 protected, or candidate species, or Species of Special Concern or their habitat are  
34 present on the Project site, and construction activities on the backlands, therefore,  
35 would not result in significant impacts under NEPA.

#### 36 *Mitigation Measures*

37 No mitigation is required.

#### 38 *Residual Impacts*

39 Residual impacts would be less than significant.

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

5           **Essential Fish Habitat**

6           Alternative 3 would have no effect on the FMP species that do not occur in the West  
7           Basin. It would have minimal effects on those that are rare or uncommon, such as Pacific  
8           mackerel and English sole (MEC and Associates, 2002) because few, if any, individuals  
9           would be in the disturbance area. Effects of dredging, dike and fill placement, pile  
10          installations, and wharf construction at Berth 100 (including the south extension) on FMP  
11          species would be similar to (but slightly less than) those described for the proposed  
12          Project. The loss of water column habitat due to placement of fill (approximately  
13          2.5 acres, including pile installation required for the relocation of the Catalina Express  
14          Terminal docks<sup>2</sup>) would result in a loss of habitat and food sources for the FMP species  
15          that use the southern West Basin. The loss of habitat would not likely have a measurable  
16          effect on sustainable fisheries because it would not measurably reduce the stocks of these  
17          species in the areas where they are harvested (primarily offshore in the open ocean).  
18          Loss of habitat for pelagic fish species that might use the West Basin, particularly  
19          northern anchovy, is considered a substantial effect that would be mitigated in  
20          accordance with established mitigation requirements as described in **Impact BIO-5**).

21          Construction activities on upland areas under Alternative 3 (including the bridges across  
22          the Southwest Slip) would have no direct effects on EFH, which is located in the water.  
23          Runoff of sediments and contaminants from such construction, however, could enter  
24          Harbor waters. As discussed in Section 3.14, implementation of sediment control  
25          measures (e.g., sediment barriers and sedimentation basins) and BMPs would minimize  
26          the impacts of such runoff.

27          **Natural Habitat or Plant Community**

28          No kelp or eelgrass beds are present in the Alternative 3 area, and those in other parts of  
29          the Harbor would not be affected by construction activities in the Berth 97-109 area due  
30          to their distance from the work area. No designated SEAs, including the least tern  
31          nesting site on Pier 400, would be affected by this alternative because no construction  
32          would take place at or near this SEA. As described for the proposed Project, no wetlands  
33          or mudflats are present in the Alternative 3 Project area, and those in other areas of the  
34          Harbor would not be affected by construction activities in the West Basin due to distance  
35          from the Alternative 3 site (more than 3 miles).

36          **CEQA Impact Determination**

37          Dike, fill, and pile placement in the southern West Basin would result in a permanent  
38          loss of Inner Harbor marine habitat and a reduction of EFH in the West Basin, a  
39          significant impact under CEQA. This significant impact would be slightly less  
40          significant than the proposed Project because this alternative would not include the  
41          approximately 0.04 acres of fill during Phase II that is included in the proposed  
42          Project (for the wharf at berth 102). Dredging, wharf construction activities, and the  
43          relocation of the Catalina Express Terminal docks would cause temporary

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<sup>2</sup> The installation of piles for the relocation of the Catalina Express terminal docks would cause a loss of approximately 0.001 acre of marine habitat and is included in the 2.5-acre estimate for rounding purposes.

1 disturbances to, but no substantial alteration of, habitat for FMP species, which  
2 would be less than significant (similar to the proposed Project). Although upland  
3 areas would be greater than those of the CEQA baseline, construction activities on  
4 the backlands, including the bridges over the Southwest Slip, would have no direct  
5 impacts on EFH or other natural habitats because none are present on land. Indirect  
6 impacts through runoff of sediments during storm events would be less than  
7 significant because such runoff would be controlled as described for water quality in  
8 Section 3.14 (e.g., Project-specific SWPPP with BMPs such as sediment barriers and  
9 sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds, wetlands, or  
10 mudflats would occur because none of these habitats are present at or near the  
11 proposed Project site.

### 12 *Mitigation Measures*

13 **MM BIO-1** would apply to this EFH impact. Mitigation for the filling of  
14 approximately 2.5 acres of Inner Harbor marine habitat would require credit from  
15 either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank.  
16 This mitigation measure would fully offset Alternative 3 impacts to EFH sustainable  
17 fisheries and loss of general marine habitat (see **Impact BIO-5**). No mitigation is  
18 required for impacts to natural habitats, special aquatic sites, or plant communities.

### 19 *Residual Impacts*

20 The mitigation credits would compensate for the loss of EFH as a result of  
21 Alternative 3, leaving no residual impact. No residual impacts would occur for  
22 natural habitats, special aquatic sties, or plant communities.

## 23 **NEPA Impact Determination**

24 Dike, fill, and pile placement in the southern West Basin under Alternative 3 would  
25 result in a permanent loss of Inner Harbor marine habitat and a reduction of EFH in  
26 the West Basin, which would be a significant impact under NEPA. This significant  
27 impact would be slightly less significant than the proposed Project because this  
28 alternative would not include the 0.04 acres of fill during Phase II that is included in  
29 the proposed Project. Impacts would be less than significant for other in-water  
30 construction activities (e.g., dredging, wharf construction, and the relocation of the  
31 Catalina Express Terminal docks). Runoff of sediments from the Project backlands  
32 during storm events would be less than significant because such runoff would be  
33 controlled as described for water quality in Section 3.14 (e.g., Project-specific  
34 SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts  
35 to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would occur because none  
36 are present at or near the proposed Project site. Although backland construction  
37 activities under Alternative 3 would occur on a larger area than the NEPA baseline  
38 (142 acres vs. 117 acres), construction BMPs would minimize impacts; consequently,  
39 backland construction would not result in significant impacts under NEPA.

### 40 *Mitigation Measures*

41 **MM BIO-1** would apply to this impact. Mitigation of the filling of approximately  
42 2.5 acres of Inner Harbor marine habitat would require credit from either the Bolsa  
43 Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation  
44 measure would fully offset Alternative 3 impacts to EFH sustainable fisheries and  
45 loss of general marine habitat (see **Impact BIO-5** below).

1 *Residual Impacts*

2 The mitigation credits would compensate for the loss of EFH as a result of  
3 Alternative 3, leaving no residual impact.

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

6 Similar to the proposed Project in **Impact BIO-3a**, Alternative 3 construction activities  
7 on land and in the water would not affect wildlife movement/migration corridors.

8 **CEQA Impact Determination**

9 Although construction would extend beyond the CEQA baseline, no wildlife  
10 movement or migration corridors are present at the project site that could be affected  
11 by Alternative 3 construction activities on land and in the water, resulting in no  
12 impacts under CEQA.

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 No residual impacts would occur.

17 **NEPA Impact Determination**

18 Dredging, dike and fill placement, pile installation, and general wharf construction in  
19 the water as well as upland terminal construction activities on the Project site would  
20 not affect any wildlife movement or migration corridors as described above; therefore,  
21 no impacts would occur under NEPA. Although backland construction activities on  
22 the Project site would occur on a larger area than would occur under the NEPA  
23 baseline (by 25 acres), there are no wildlife movement or migration corridors on the  
24 Project site; consequently, backland construction would not result in significant  
25 impacts under NEPA.

26 *Mitigation Measures*

27 No mitigation is required.

28 *Residual Impacts*

29 No residual impacts would occur.

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

32 **Dredging**

33 Similar to the proposed Project, dredging, dike and fill placement, and pile installation for  
34 the new wharves at Berth 100 for Phase I would also apply to Alternative 3.  
35 Approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 were  
36 disturbed and removed (Table 3.3-3). Prior to Phase III, the relocation of the Catalina  
37 Express Terminal docks would occur and would result in minor disruption of soft-bottom  
38 habitat. In Phase III, approximately 1.2 acres of additional soft-bottom habitat would  
39 also be disturbed and removed as a result of dike and fill placement for the Berth 100

1 southern extension. Benthic invertebrates (approximately 0.1 metric ton) living in and on  
2 the sediments to be dredged or filled adjacent to the berths would be lost from being  
3 dredged and/or covered with dike and fill, but the newly exposed dike riprap and piles  
4 would provide new habitat that would be colonized by a diverse assemblage of marine  
5 organisms at a higher biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and  
6 Associates, 2002) than that found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and  
7 Associates, 2002) based on observed biomass of organisms in/on those habitats.  
8 Although a small proportion of the soft bottom in the West Basin would be affected by  
9 the dredging, fill, and pile placement (including the relocation of the Catalina Express  
10 terminal docks), the loss of benthic communities in the West Basin or the Harbor would  
11 be considered significant under Alternative 3.

12 Effects of turbidity and resuspension of sediments containing contaminants on planktonic  
13 organisms would be limited to the immediate vicinity of the dredging and would be the  
14 same as for the proposed Project.

15 Removal of sediments containing accumulated contaminants through dredging for the  
16 wharf work at Berth 100 (including the south extension) would provide the same benefit  
17 to the benthic community in the West Basin and the Harbor as the proposed Project.  
18 Temporary disturbances to fish and marine mammals caused by dredging and wharf  
19 construction activities for Alternative 3 would be the same as for the proposed Project.

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

### 31 **Wharf and Backland Construction**

32 For Alternative 3, as for the proposed Project, construction of a new 1,575-foot wharf at  
33 Berth 100 would add areas new rocky dike hard substrate habitat. The placement of dike  
34 and fill would result in the loss of approximately 0.2 metric tons of benthic invertebrates,  
35 including the 0.1 metric ton lost from dredging. Marginal aquatic habitat benefit would  
36 accrue from the small amount of new hard substrate created under Alternative 3.

37 As with the proposed Project, the construction of wharf and container terminal facilities  
38 on newly created fill (by the Channel Deepening Project) under Alternative 3, as well as  
39 construction on previously developed areas, could affect biological resources through  
40 (1) noise and vibration and (2) runoff of pollutants. Turbidity, noise, and vibration  
41 (primarily from pile driving) would likely cause most fish and birds to temporarily avoid  
42 the immediate construction area. Fish and bird populations would not be adversely  
43 affected because the small number of individuals moving into other areas of the West  
44 Basin, the short duration of the disturbance, and the small area affected would not  
45 substantially disrupt West Basin biological communities. Backland construction  
46 activities would have minimal effect on terrestrial biota because the species present are  
47 non-native and/or adapted to use of developed sites. Disturbances to marine species

1 would be temporary, and the animals present could move to other nearby areas for the  
2 duration of the disturbance. Consequently, biological communities in this industrial area  
3 would not be substantially disrupted.

4 Runoff of pollutants from Alternative 3 backland construction activities would be  
5 minimized through use of BMPs (see Section 3.14), and the low concentrations that could  
6 enter Harbor waters would not adversely affect marine organisms.

## 7 **Accidents**

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

12 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
13 dredging and disposal of the material are unlikely to occur during Alternative 3  
14 construction (see Section 3.14 **Impact WQ-1d**) and would not adversely affect aquatic  
15 biota to the degree that West Basin biological communities are substantially disrupted.  
16 Any such spills would be small and cleaned up immediately, resulting in loss of few  
17 marine organisms and causing no adverse community effects. A larger spill that could  
18 have locally substantial effects on biological resources is not expected to occur, even  
19 under reasonable worst-case conditions (see Section 3.8, Hazards). Accidental spills of  
20 pollutants during construction on land would be small because large quantities of such  
21 substances would not be used during construction. These spills would be contained and  
22 cleaned up with no runoff to Harbor waters (see Section 3.14).

## 23 **CEQA Impact Determination**

24 Construction activities on the backlands would extend beyond the CEQA baseline  
25 area but would not result in a substantial disruption of local biological communities  
26 for the reasons described above, and impacts, therefore, would be less than  
27 significant. However, the loss of approximately 2.5 acres of soft-bottom habitat in  
28 the West Basin and in the vicinity of Berth 95 (for the relocation of the Catalina  
29 Express Terminal docks) would represent a significant impact to the benthic  
30 community. Runoff of pollutants from backland construction activities would not  
31 substantially disrupt biological communities in the West Basin and would have only  
32 localized, short-term, less than significant impacts on marine organisms in the  
33 immediate vicinity of drain outlets due to implementation of runoff control measures  
34 that are part of Alternative 3 (e.g., project-specific SWPPP and BMPs such as  
35 sediment barriers and sedimentation basins; see Section 3.14.4.3 for a list of  
36 measures). Accidental spills from equipment during dredging would not  
37 substantially disrupt local biological communities because they would be small,  
38 contained, cleaned up immediately, and would affect only a few common marine  
39 organisms and, thus, would have localized and less than significant impacts.  
40 Accidental spills during construction on land would not affect Harbor waters due to  
41 the implementation of BMPs and, thus, would have no impacts on marine  
42 communities. No notice to proceed will be issued without approval of the specific  
43 SWPPP and BMPs.

## 44 *Mitigation Measures*

45 **MM BIO-1** would apply for benthic community impacts (see **Impact Bio-5** for  
46 detailed description of this measure).

1                    *Residual Impacts*

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

4                    **NEPA Impact Determination**

5                    In-water construction in the West Basin would result in a loss of benthic communities  
6                    in the West Basin and Berth 95 vicinity, as described above, and impacts, therefore,  
7                    would be significant. Although backland construction at the terminal site would  
8                    occur on a larger area than would occur under the NEPA baseline (by 25 acres), there  
9                    are no local biological communities on the Project site that could be adversely  
10                    affected; consequently, backland construction would not result in significant  
11                    biological resource impacts under NEPA.

12                    *Mitigation Measures*

13                    **MM BIO-1** would apply for benthic community impacts (see **Impact Bio-5** for  
14                    detailed description of this measure).

15                    *Residual Impacts*

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

18                    **Impact BIO-5: Alternative 3 would result in a permanent loss of  
19                    marine habitat would occur.**

20                    Dike, fill, and pile placement in the West Basin occurred in Phase I (as applied to  
21                    Alternative 3) and would occur for wharf construction at Berth 100 south. In addition, up  
22                    to 15 piles would be added to the Berth 95 vicinity for the relocation of the Catalina  
23                    Express terminal docks. Placement of dike, fill, and piles would cause a loss of aquatic  
24                    habitat, including water column and soft bottom. The beneficial uses associated with that  
25                    habitat would also be lost. The dike and fill placement in the water adjacent to the berths  
26                    would result in a net loss of approximately 2.5 acres, which is slightly less than the  
27                    2.54 acres under the proposed Project.

28                    **CEQA Impact Determination**

29                    Project construction would occur beyond the CEQA baseline area into the West  
30                    Basin and the placement of dike, fill, and piles in the vicinity of Berth 100 and pile  
31                    placement in the vicinity of Berth 95 for the relocation of the Catalina Express  
32                    terminal docks under Alternative 3 would cause a permanent loss of approximately  
33                    2.5 acres of aquatic habitat in the Los Angeles Inner Harbor (primarily southern West  
34                    Basin), as described above, and this impact is considered significant under CEQA  
35                    (but slightly less significant than the proposed Project because Alternative 3 would  
36                    not include the 0.04 acres of fill during Phase II).

37                    *Mitigation Measures*

38                    **MM BIO-1**, as described under the proposed Project, would be implemented, which  
39                    would fully mitigate the impact.

1 *Residual Impacts*

2 **MM BIO-1** would completely mitigate the significant loss of Inner Harbor habitat  
3 for aquatic species by replacement through existing mitigation agreements/banks.  
4 Therefore, no residual impact would remain.

5 **NEPA Impact Determination**

6 Alternative 3 development would include in-water construction that is not included in  
7 the NEPA baseline. Under Alternative 3, dike, fill, and pile placement in the West  
8 Basin and Berth 95 vicinity would cause a permanent loss of approximately 2.5 acres  
9 of aquatic habitat in the Los Angeles Inner Harbor, as described above, and this  
10 impact is considered significant under NEPA (but slightly less significant than the  
11 proposed Project because Alternative 3 would not include the 0.04 acres of fill during  
12 Phase II).

13 *Mitigation Measures*

14 **MM BIO-1**, as described under the proposed Project, would be implemented, which  
15 would fully mitigate the impact.

16 *Residual Impacts*

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

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

24 As with the proposed Project, operation of new container terminal facilities in the West  
25 Basin under Alternative 3 would not adversely affect any of the state- or federally listed,  
26 or special concern bird species listed in Table 3.3-1. Those species that currently use the  
27 West Basin area for foraging or resting could continue to do so because Alternative 3  
28 would not appreciably change the industrial activities in the West Basin or cause a loss of  
29 habitat for those species. Operation of the backland facilities (e.g., cranes and container  
30 handling/transfers) would not measurably change the numbers or species of common  
31 birds in that area and, thus, would not affect peregrine falcon foraging. Perching  
32 locations for birds such as the California brown pelican would still be available. The  
33 increase in vessel traffic of one vessel every 3 days on average would cause a short  
34 interval of disturbance throughout the route from Angels Gate to Berths 97-109 in the  
35 West Basin, but would not result in a loss of habitat or individuals for sensitive birds that  
36 use the water surface for resting or foraging.

37 An estimated 130 additional vessel calls per year above the CEQA and NEPA baseline  
38 ship calls of zero to the Port would result from Alternative 3. Underwater sound from  
39 these vessels or tug boats used to maneuver them to the berth would add to the existing  
40 vessel traffic noise in the Harbor. Because a doubling in the number of vessels (noise  
41 sources) in the Harbor would be necessary to increase the overall underwater sound level  
42 by 3 dBA (FHWA, 1978), the small increase in vessels relative to the total using the  
43 Harbor (2,850 per year in Los Angeles Harbor) would not result in a measurable change  
44 in overall noise. Adding one vessel transit every 3 days on average will not adversely

1 affect marine mammals in the Outer Harbor, Main Channel, and the West Basin because  
2 the transit distance would be short and infrequent, few individuals would be affected  
3 (large numbers are not present in the Harbor), sea lions would be expected to avoid sound  
4 levels that could cause damage to their hearing (as described in **Impact BIO-1a**), and  
5 overall underwater noise levels would not be measurably increased. Vessels approaching  
6 Angels Gate would pass through nearshore waters, and sound from their engines and  
7 drive systems could disturb marine mammals that happen to be nearby. However, few  
8 individuals would be affected because the animals are generally sparsely distributed  
9 (i.e., have densities of less than five individuals per 100 square kilometers [Forney et al.,  
10 1995]), the animals would likely move away from the sound as it increases in intensity  
11 from the approaching vessel, and exposure would be of short duration. Noise levels  
12 associated with vessel traffic, including near heavily used ferry terminals, generally range  
13 between 130 and 136 dB (WSDOT, 2006), which are below the injury threshold of  
14 180 dB<sub>rms</sub>.

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

17 The addition of 130 vessel calls under Alternative 3 to the Port would have a low  
18 probability of harming endangered, threatened, or species of concern, such as marine  
19 mammals and sea turtles. Specifically, in regard to vessel collisions with whales in  
20 California coastal waters, the large amount of vessel traffic along the coast has resulted in  
21 few (fewer than three per year on average) reported whale strikes over the past 25 years.  
22 Vessel speed seems to influence whale/ship collision incidences, and such strikes, if any  
23 were to occur, would likely be fatal to the whales because unmitigated vessel speeds are  
24 generally above 13 knots in the coastal shipping lanes. As discussed in Section 3.3.2.5,  
25 NOAA Fisheries recommends that speed restrictions in the range of 10 to 13 knots be  
26 used where appropriate, feasible, and effective, in areas where reduced speed is likely to  
27 reduce the risk of ship strikes and facilitate whale avoidance.

## 28 **CEQA Impact Determination**

29 Terminal activity under Alternative 3 would be greater than the CEQA baseline;  
30 however, operational activities would result in no loss of habitat for rare, threatened,  
31 endangered, protected, or candidate species, or Species of Special Concern. No  
32 impacts to critical habitat would occur because no critical habitat is present.

33 Increased ship calls, however, may affect some species. Underwater sound from  
34 Alternative 3 vessels would affect few, if any, marine mammals for the reasons  
35 described above; impacts, therefore, would be less than significant under CEQA.

36 Container ships transiting the coastal waters of Southern California could potentially  
37 cause harm to endangered, threatened, or species of concern, such as marine  
38 mammals and sea turtles, from vessel collisions. Impacts of Alternative 3-related  
39 vessel traffic on marine mammals would be considered less than significant because  
40 of the low probability of vessel strikes, and vessel strikes under Alternative 3 would  
41 not be expected to occur. As discussed above, fewer than three vessel strikes with  
42 whales are reported on average per year for the California coast. Very few ship  
43 strikes involving pinnipeds have been reported over the past 28 years by the Santa  
44 Barbara Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been  
45 reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
46 2003 showed signs of blunt force trauma consistent with a vessel strike (Santa  
47 Barbara Marine Mammal Center, 1976–2004). No collisions have been reported

1 between any oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002),  
2 although an oil supply vessel struck and presumably killed an adult male northern  
3 elephant seal in the Santa Barbara Channel in June 1999 (Minerals Management  
4 Service, 2001).

5 Although the likelihood of such a collision is very low, it does occur and may cause  
6 an impact to species listed on the ESA, especially blue whales. Therefore, although  
7 considered less than significant because of the low probability of vessel strikes, any  
8 increase in vessel traffic caused by the Alternative 3 may incrementally increase the  
9 potential for whale strikes.

#### 10 *Mitigation Measures*

11 Although the likelihood of a collision between a vessel and marine mammals is very  
12 low, the following measure would further reduce potential impacts.

13 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
14 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
15 **between 40 nm from Point Fermin and the Precautionary Area in**  
16 **the following implementation schedule:**

17 **■ 100 percent starting 2009**

18 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
19 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
20 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
21 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
22 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
23 40-nm zone extends to the Channel Island area.

#### 24 *Residual Impacts*

25 Residual impacts would be less than significant.

#### 26 **NEPA Impact Determination**

27 Operation of facilities on the terminal backlands under Alternative 3 would be greater  
28 than under the NEPA baseline due to a larger backland area and higher throughput.  
29 Terminal activity under Alternative 3 would be greater than the NEPA baseline;  
30 however, operational activities would result in no loss of habitat for rare, threatened,  
31 endangered, protected, or candidate species, or Species of Special Concern. No  
32 impacts to critical habitat would occur because no critical habitat is present.

33 Increased ship call, however, may affect some species. Underwater sound from  
34 Alternative 3-related vessels would affect few, if any, marine mammals for the  
35 reasons described above; impacts, therefore, would be less than significant under  
36 NEPA.

37 Container ships transiting the coastal waters of Southern California could potentially  
38 cause harm to endangered, threatened, or species of concern, such as marine  
39 mammals and sea turtles, from vessel collisions. Impacts of Alternative 3-related  
40 vessel traffic on marine mammals would be considered less than significant because  
41 of the low probability of vessel strikes, and vessel strikes under Alternative 3 would  
42 not be expected to occur. As discussed above, fewer than three vessel strikes with  
43 whales are reported on average per year for the California coast. Very few ship  
44 strikes involving pinnipeds have been reported over the past 28 years by the Santa

1 Barbara Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been  
2 reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
3 2003 showed signs of blunt force trauma consistent with a vessel strike (Santa  
4 Barbara Marine Mammal Center, 1976–2004). No collisions have been reported  
5 between any oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002),  
6 although an oil supply vessel struck and presumably killed an adult male northern  
7 elephant seal in the Santa Barbara Channel in June 1999 (Minerals Management  
8 Service, 2001).

9 Although the likelihood of such a collision is very low, such collisions occur and may  
10 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
11 although considered less than significant because of the low probability of vessel  
12 strikes, any increase in vessel traffic caused by the project may incrementally  
13 increase the potential for whale strikes.

#### 14 *Mitigation Measures*

15 Although the likelihood of a collision between a vessel and marine mammals is very  
16 low, the following measure would further reduce potential impacts:

17 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
18 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
19 **between 40 nm from Point Fermin and the Precautionary Area in**  
20 **the following implementation schedule:**

- 21 ■ 100 percent starting 2009

22 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
23 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
24 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
25 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
26 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
27 40-nm zone extends to the Channel Island area.

#### 28 *Residual Impacts*

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

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

#### 35 **Essential Fish Habitat**

36 Operation of terminal facilities in the West Basin under Alternative 3 would have  
37 minimal effects on EFH. Although, Alternative 3 vessels would add to the number of  
38 noise events, they would not substantially add to the overall underwater noise level. The  
39 addition of one vessel trip every 3 days on average would not adversely affect FMP  
40 species present in the Outer Harbor, Main Channel, or the West Basin because the  
41 additional trips proposed for the alternative are infrequent. Schooling fish, such as  
42 sardines and anchovy, likely would ignore the ship movements and sound or temporarily  
43 move out of the way. Other FMP species are rare in the port and vessel noise would not  
44 result in any but temporary effects on their distribution in the Port in spite of a projected

1 additional 130 visits to the existing number of ships in the West Basin (332 ships in  
2 2001). In recent history, the Port has witnessed an improvement in fish abundance  
3 including EFH for FMP species (MEC, 2002), even though there has been increased  
4 vessel traffic in the harbor. Therefore, it is unlikely that additional ship calls would affect  
5 FMP species, and ship calls would not adversely affect EFH for any species. Operation  
6 of Alternative 3 facilities on land would not affect EFH because none is present on land.  
7 Runoff from the new facilities would not substantially reduce or alter EFH in Harbor  
8 waters because water quality standards for protection of marine life would not be  
9 exceeded (see Section 3.14, Water Quality, Sediments, and Oceanography).

## 10 **Natural Habitat or Plant Community**

11 As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
12 could be affected by operation of the terminal under Alternative 3. No wetlands or  
13 eelgrass are present in the proposed Project area, and those in other areas of the Harbor  
14 are not located in or near (over 1 mile away) the channels used for vessel movement in  
15 the Harbor. No mudflats are present at the proposed Project site, and the small increase  
16 in vessel traffic would not affect the mudflats along the Main Channel. Thus, these  
17 habitats would not be affected by operational activities in the West Basin or vessel transit  
18 through the Harbor to the West Basin.

## 19 **CEQA Impact Determination**

20 Terminal activity under Alternative 3 would be greater than the CEQA baseline;  
21 however, operational activities on land and in the water under Alternative 3 would  
22 not substantially reduce or alter EFH for the reasons described above, resulting in  
23 less than significant impacts to EFH under CEQA. No SEAs, natural plant  
24 communities, wetlands, or eelgrass are present, and the mudflats along the Main  
25 Channel would not be affected by project-related vessel traffic, resulting in no  
26 impacts under CEQA.

### 27 *Mitigation Measures*

28 No mitigation is required.

### 29 *Residual Impacts*

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

## 32 **NEPA Impact Determination**

33 Under Alternative 3, operational activities in the water would not substantially reduce  
34 or alter EFH for the reasons described above, resulting in less than significant  
35 impacts to EFH under NEPA. Operational activities in the water would not affect  
36 SEAs, natural plant communities, wetlands, and eelgrass because none are present  
37 where in-water activities would occur. No impacts would occur to mudflats along  
38 the Main Channel because project-related vessel traffic would not affect them.  
39 Alternative 3 upland operational activities would be more intensive than operational  
40 activities under the NEPA baseline, but there are no EFH or natural habitats on the  
41 proposed Project site; consequently, backland operations would not result in  
42 significant impacts under NEPA.

1                    *Mitigation Measures*

2                    No mitigation is required.

3                    *Residual Impacts*

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

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

8                    As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
9                    migration corridors are present in the Project area, either on land or in the water.  
10                    Migration by bird species that visit or pass through the terminal would not be affected by  
11                    the changes in terminal operations because the new structures would not impede their  
12                    movement. Operation of the backland facilities under Alternative 3, including the  
13                    bridges over the Southwest Slip, would not interfere with any terrestrial migration  
14                    corridors because none are present in those areas. Terminal-related vessel traffic to and  
15                    from the Harbor under Alternative 3 would not interfere with marine mammal migrations  
16                    along the coast because these vessels would represent a small proportion (4.5 percent) of  
17                    the total Port-related commercial traffic in the area, and each vessel would have a low  
18                    probability of encountering migrating marine mammals during transit through coastal  
19                    waters because these animals are generally sparsely distributed.

20                    **CEQA Impact Determination**

21                    Although terminal operations would extend over a larger area and be more intensive  
22                    than the CEQA baseline, no wildlife movement or migration corridors would be  
23                    affected by Alternative 3 during operations activities on land and in the water,  
24                    resulting in no impacts under CEQA.

25                    *Mitigation Measures*

26                    No mitigation is required.

27                    *Residual Impacts*

28                    No residual impacts would occur.

29                    **NEPA Impact Determination**

30                    Operation of terminal facilities under Alternative 3 would not affect any wildlife  
31                    movement or migration corridors in the water for the reasons described above;  
32                    therefore, no impacts would occur under NEPA. Operational activities on terminal  
33                    backlands under Alternative 3 would be more intensive than operational activities  
34                    under the NEPA baseline, but there are no migration corridors on the Project site;  
35                    consequently, backland operations would not result in significant impacts under  
36                    NEPA.

37                    *Mitigation Measures*

38                    No mitigation is required.

39                    *Residual Impacts*

40                    No residual impacts would occur.

1                   **Impact BIO-4b: Operation of the new facilities could substantially**  
2                   **disrupt local biological communities.**

3                   Operational or permanent effects associated with Alternative 3 would be similar to those  
4                   described for the proposed Project in **Impact BIO-4b** because the amount of new hard  
5                   substrate (dike placement and pile installation) under this alternative, the terminal acreage,  
6                   and the two bridges over the Southwest Slip would be the same as for the proposed  
7                   Project. Vessel traffic to and from the terminal wharves would have minimal direct  
8                   effects on benthic communities in the West Basin as a result of propeller wash (USACE  
9                   and LAHD, 1992), and vessel traffic effects on water column species would be the  
10                  similar to those of the proposed Project (see **Impact BIO-4b**).

11                  However, as described for the proposed Project, if a vessel accident occurs and fuels spill  
12                  into Harbor or ocean waters, they could harm biological resources, depending on the  
13                  extent of the spill. Such a vessel spill would be considered to be a significant impact due  
14                  to the potential for harm to biological resources.

15                  Similar to the proposed Project, accidental spills in upland areas are not expected to result  
16                  in significant impacts to biological resources.

17                  Runoff of pollutants to the Harbor from the new facilities on existing land would be  
18                  similar to those described for the proposed Project in **Impact BIO-4b** because the  
19                  terminal acreage would be the same. Runoff of pollutants would have no adverse effects  
20                  on water quality (Section 3.14) and, thus, would not adversely affect West Basin  
21                  biological communities (fish, benthos, and plankton). Such runoff could occur during  
22                  dry weather and from storm events. The latter is periodic, primarily during the winter  
23                  rainy season and generally of short duration.

24                  Terminal lighting under Alternative 3 would be similar to that of the proposed Project  
25                  because the terminal backlands would have the same acreage. The amount of light at the  
26                  terminal site would not substantially increase. Because the lighting would be in industrial  
27                  areas, the light would not substantially affect terrestrial wildlife habitat or the species  
28                  present. Most of the new lights would be located away from the edge of the water  
29                  (throughout the backlands), which would minimize effects on marine organisms so that  
30                  biological communities would not be substantially disrupted.

31                   **CEQA Impact Determination**

32                   There is a remote potential for an accidental vessel spill to occur during Project  
33                   operation, which could harm biological resources in the Harbor or ocean. Such a  
34                   spill would be considered significant. Upland spills from terminal operations are not  
35                   expected to result in significant impacts for the reasons discussed above.

36                   Although terminal operations would extend over a larger area and be more intensive  
37                   than the CEQA baseline, terminal operations under Alternative 3 would not  
38                   substantially disrupt West Basin and Harbor biological communities through runoff  
39                   of contaminants. Existing runoff and storm drain discharge controls, as well as  
40                   conditions of all terminal-specific permits, would be implemented (see Section 3.14).  
41                   The presence of new wharf structures, increased vessel traffic, or new lighting would  
42                   not substantially disrupt West Basin and Harbor biological communities, for the  
43                   reasons described above. Impacts, therefore, would be less than significant under  
44                   CEQA.

1 *Mitigation Measures*

2 No mitigation, beyond implementation of measures required under existing  
3 regulations, is available to fully mitigate potential impacts related to potential  
4 accidental spills from container vessels during project operation.

5 *Residual Impacts*

6 Residual impacts related to potential vessel spills would be significant.

7 Residual impacts would be less than significant for other in-water operations for  
8 operation of land facilities.

9 **NEPA Impact Determination**

10 There is a remote potential for an accidental vessel spill to occur during Project  
11 operation, which could harm biological resources in the Harbor or ocean. Such a  
12 spill would be considered significant. Upland spills from terminal operations are not  
13 expected to result in significant impacts for the reasons discussed above.

14 Under Alternative 3, the new wharf structures in the water column, shade from the  
15 new bridges, and increased vessel traffic would not substantially disrupt West Basin  
16 and Harbor biological communities for the reasons described above. Consequently,  
17 impacts to biological communities would be less than significant under NEPA.

18 Although backland operation of facilities on the Project site would be more intensive  
19 than the NEPA baseline due to higher backland acreage (by 25 acres) and increased  
20 throughout, there are no biological communities on the Project site that could be  
21 adversely affected. Therefore, upland operations would not result in significant  
22 impacts under NEPA.

23 *Mitigation Measures*

24 No mitigation, beyond implementation of measures required under existing  
25 regulations, is available to fully mitigate potential impacts related to potential  
26 accidental spills from container vessels during project operation.

27 *Residual Impacts*

28 Residual impacts related to potential vessel spills would be significant.

29 Residual impacts would be less than significant for other in-water operations for  
30 operation of land facilities.

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

34 The amount of ballast water discharged into the West Basin and, thus, the potential for  
35 introduction of invasive exotic species (LAHD, 1999) from Alternative 3 operations  
36 would be less than those described for the proposed Project due to fewer ship calls.  
37 These vessels would come primarily from outside the EEZ and would be subject to  
38 regulations to minimize the introduction of non-native species in ballast water (see  
39 Section 3.3.3.8). Thus, ballast water discharges during cargo transfers in the Port would  
40 be unlikely to contain non-native species.

41 Non-native algal species can also be introduced via vessel hulls. As described for the  
42 proposed Project in **Impact BIO-4b**, the risk for introduction of these species is low.

1 *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC  
2 and Associates, 2002), and *Sargassum filicinum* found in 2003 (MBC, 2003), may be  
3 introduced and/or spread as a result of hull fouling or ballast water, and, therefore, have  
4 the potential to increase in the Harbor via vessels traveling between ports in the EEZ, as  
5 described for the proposed Project. Invertebrates attached to vessel hulls could be  
6 introduced in a similar manner.

7 Terminal operations under Alternative 3 would result in a smaller increase  
8 (approximately 4.5 percent) in vessel traffic compared to the total number of vessels  
9 entering the Los Angeles Harbor as for the proposed Project (approximately 8 percent).  
10 Considering this and the ballast water regulations currently in effect, the potential for  
11 introduction of additional exotic species via ballast water would be low from vessels  
12 entering from or going outside the EEZ. The potential for introduction of exotic species  
13 via vessel hulls would be increased in proportion to the increase in number of vessels.  
14 However, vessel hulls are generally coated with antifouling paints and cleaned at  
15 intervals to reduce the frictional drag from growths of organisms on the hull (Global  
16 Security, 2007), which would reduce the potential for transport of exotic species. For  
17 these reasons, Alternative 3 has a low potential to increase the introduction of non-native  
18 species into the Harbor that could substantially disrupt local biological communities, but  
19 such effects could still occur.

## 20 **CEQA Impact Determination**

21 Alternative 3 would increase the annual ship calls relative to the CEQA baseline.  
22 Operation of the Alternative 3 facilities has the potential to result in the introduction  
23 of non-native species into the Harbor via ballast water or vessel hulls that could  
24 substantially disrupt local biological communities. Therefore, impacts would be  
25 significant under CEQA.

### 26 *Mitigation Measures*

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

### 31 *Residual Impacts*

32 Residual impacts would be significant.

## 33 **NEPA Impact Determination**

34 While unlikely, operation of the Alternative 3 facilities has the potential to result in  
35 the introduction of non-native species into the Harbor via ballast water or vessel hulls  
36 that could substantially disrupt local biological communities. Therefore, impacts  
37 would be significant under NEPA.

### 38 *Mitigation Measures*

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

### *Residual Impacts*

Residual impacts would be significant.

#### **3.3.4.3.2.4 Alternative 4 – Reduced Fill: No South Wharf Extension at Berth 100**

Alternative 4 would develop a 130-acre container terminal on the Project but with reduced wharf length. Under Alternative 4, wharves at Berth 100 and Berth 102 (no Berth 100 south extension) would be constructed for a total length of 2,125 feet (1,200 feet in Phase I and 925 feet in Phase II). Alternative 4 would not include the relocation of the Catalina Express Terminal but would include the two bridges across the Southwest Slip. The container terminal under Alternative 4 would handle approximately 1,392,000 TEUs annually and accommodate up to 208 annual ship calls.

Impacts of Alternative 4 on biological resources would be less than those described for the proposed Project because it would require fewer dikes, less fill placement, and shorter wharves. Under Alternative 4, approximately 41,000 cubic yards of dredging, 88,000 cubic yards of rock dike, and 14,000 cubic yards of fill occurred under Phase I construction (loss of 1.3 acres of aquatic habitat), as applied to Alternative 4. In Phase II, the Berth 102 wharf would be constructed, which would require pile driving (loss of 0.04 acres of aquatic habitat from the piles), but no dredging, dike placement, or fill would be required.

#### **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.**

Anticipated impacts to threatened or endangered species or their habitat from dredging, dike placement, fill, pile installation, and wharf improvements would be similar to, but less than, those of the proposed Project (due to similar but less extensive construction activities) and would be unlikely to affect such resources 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 4 area. Foraging by the California least tern, California brown pelican, or any other special-status species in Table 3.3-1 could continue during construction with no adverse effects to the species. Individuals using the West Basin could use other areas in the Harbor if they choose to avoid the immediate construction 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 Berth 100 is the same as for the proposed Project.

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

#### **CEQA Impact Determination**

Although Alternative 4 construction would extend beyond the CEQA baseline area, construction activities on land and in the water under 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 sound pressure waves from construction

1 activities in the water would not injure marine mammals; impacts, therefore, would  
2 be less than significant under CEQA. No critical habitat for federally listed species is  
3 present, and no impacts would occur.

#### 4 *Mitigation Measures*

5 No mitigation is required.

#### 6 *Residual Impacts*

7 Residual impacts would be less than significant.

### 8 **NEPA Impact Determination**

9 As described above, in-water construction activities under Alternative 4 would not  
10 result in loss of individuals or habitat for rare, threatened, endangered, protected, or  
11 candidate species, or Species of Special Concern, and sound pressure waves from  
12 construction activities in the water would not injure marine mammals; therefore,  
13 impacts would be less than significant under NEPA. Although backlands under  
14 Alternative 4 would be larger than under the NEPA baseline (by 13 acres), no rare,  
15 threatened, endangered, protected, or candidate species, or Species of Special  
16 Concern or their habitat is present on the Project site; therefore, construction  
17 activities on the backlands would not result in significant impacts under NEPA.

#### 18 *Mitigation Measures*

19 No mitigation is required.

#### 20 *Residual Impacts*

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

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

### 27 **Essential Fish Habitat**

28 Alternative 4 would have no effect on the FMP species that do not occur in the West  
29 Basin, and minimal effects on those that are rare or uncommon, such as Pacific mackerel  
30 and English sole (MEC and Associates, 2002) because few, if any, individuals would be  
31 in the disturbance area. Effects of dredging, dike and fill placement, pile installations,  
32 and wharf construction at Berths 100 and 102 on FMP species would be similar to those  
33 described for the proposed Project. The loss of water column habitat due to placement of  
34 fill (1.3 acres) and piles (0.04 acres) would result in a loss of habitat and food sources for  
35 the FMP species that use the southern West Basin. The loss of habitat would not likely  
36 have a measurable effect on sustainable fisheries because it would not measurably reduce  
37 the stocks of these species in the areas where they are harvested (primarily offshore in the  
38 open ocean). Loss of habitat for pelagic fish species that might use the West Basin,  
39 particularly northern anchovy, is considered a substantial effect that would be mitigated  
40 in accordance with established mitigation requirements as described in **Impact BIO-5**).

41 Construction activities on upland areas under Alternative 4 (including the bridges across  
42 the Southwest Slip) would have no direct effects on EFH, which is located in the water.

1 Runoff of sediments and contaminants from such construction, however, could enter  
2 Harbor waters. As discussed in Section 3.14, implementation of sediment control  
3 measures (e.g., sediment barriers and sedimentation basins) and BMPs would minimize  
4 the impacts of such runoff.

### 5 **Natural Habitat or Plant Community**

6 No kelp or eelgrass beds are present in the Alternative 4 area, and those in other parts of  
7 the Harbor would not be affected by construction activities in the Berth 97-109 area due  
8 to their distance from the work area. No designated SEAs, including the least tern  
9 nesting site on Pier 400, would be affected by this alternative because no construction  
10 would take place at or near this SEA. As described for the proposed Project, no wetlands  
11 or mudflats are present in the Alternative 4 Project area, and those in other areas of the  
12 Harbor would not be affected by construction activities in the West Basin due to distance  
13 from the Alternative 4 site (more than 3 miles).

### 14 **CEQA Impact Determination**

15 Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to  
16 Alternative 4) resulted in a permanent loss of Inner Harbor marine habitat and a  
17 reduction of EFH in the West Basin, a significant impact under CEQA. The pile  
18 installation during Phase II would result in the loss of an additional 0.04 acres of  
19 marine habitat, which is considered significant. Future wharf construction activities  
20 would cause temporary disturbances to, but no substantial alteration of, habitat for  
21 FMP species, which would be less than significant (similar to the proposed Project).  
22 Although upland areas would be greater than those of the CEQA baseline,  
23 construction activities on the backlands, including the bridges over the Southwest  
24 Slip, would have no direct impacts on EFH or other natural habitats because none are  
25 present. Indirect impacts through runoff of sediments during storm events would be  
26 less than significant because such runoff would be controlled as described for water  
27 quality in Section 3.14 (e.g., Project-specific SWPPP with BMPs such as sediment  
28 barriers and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds,  
29 wetlands, or mudflats would occur because none of these habitats are present at or  
30 near the proposed Project site.

### 31 *Mitigation Measures*

32 **MM BIO-1** would apply to this EFH impact. However, because this alternative  
33 would result in less Inner Harbor fill than the proposed Project, fewer mitigation  
34 credits would apply. Mitigation of the filling of approximately 1.34 acres of Inner  
35 Harbor marine habitat (1.3 acres under Phase I, as applied to Alternative 4 and  
36 0.04 acres from pile placement for Berth 102 in Phase II) would require  
37 approximately 0.67 Outer Harbor credit from either the Bolsa Chica Mitigation  
38 Agreement or the Outer Harbor Mitigation Bank. This mitigation measure would  
39 fully offset Alternative 4 impacts to EFH sustainable fisheries and loss of general  
40 marine habitat (see **Impact BIO-5**). No mitigation is required for impacts to natural  
41 habitats, special aquatic sites, or plant communities.

### 42 *Residual Impacts*

43 The mitigation credits would compensate for the loss of EFH as a result of the  
44 Alternative 4, leaving no residual impact. No residual impacts would occur for  
45 natural habitats, special aquatic sties, or plant communities.

## NEPA Impact Determination

Dike, fill, and pile placement in the southern West Basin under Alternative 4 would result in a permanent loss of 1.34 acres of Inner Harbor marine habitat and a reduction of EFH in the West Basin under Phase I and Phase II construction, which is a significant impact under NEPA. Impacts would be less than significant for other in-water construction activities (e.g., dredging and wharf construction). Runoff of sediments from the Project backlands during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.14 (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 Project site. Although backland construction activities under Alternative 4 would occur on a larger area than the NEPA baseline (130 acres vs. 117 acres), construction BMPs would minimize impacts; consequently, backland construction would not result in significant impacts under NEPA.

### *Mitigation Measures*

**MM BIO-1** would apply to this EFH impact. However, because this alternative would result in less Inner Harbor fill than the proposed Project, fewer mitigation credits would apply. Mitigation for the filling of approximately 1.34 acres of Inner Harbor marine habitat (1.3 acres under Phase I, as applied to Alternative 4 and 0.04 acres from pile placement for Berth 102 in Phase II) would require approximately 0.67 Outer Harbor credits from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation measure would fully offset Alternative 4 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 Alternative 4, leaving no residual impact.

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

Similar to the proposed Project in **Impact BIO-3a**, Alternative 4 construction activities on land and in the water would not affect wildlife movement/migration corridors.

## CEQA Impact Determination

Although construction would extend beyond the CEQA baseline, no wildlife movement or migration corridors would be affected by Alternative 4 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, dike and fill placement, pile installation, and general wharf construction in the water as well as upland terminal construction activities on the Project site did not for Phase I and (for future construction) would not affect any wildlife movement or migration corridors as described above; therefore, no impacts would occur under NEPA. Although backland construction activities on the Project site would occur on a larger area than would occur under the NEPA baseline (by 13 acres), there are no wildlife movement or migration corridors on the Project site; consequently, backland construction would not result in significant impacts under NEPA.

### *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.**

### **Dredging**

Similar to the proposed Project, dredging, dike and fill placement, and pile installation for the new wharves at Berth 100 (constructed in Phase I) and pile placement for wharf construction at Berth 102 would apply to Alternative 4. Approximately 1.34 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I (Table 3.3-3) were disturbed and removed. Benthic invertebrates (approximately 0.1 metric ton) living in and on the sediments to be dredged or filled adjacent to the berths were lost from being dredged and/or covered with dike and fill, but the newly exposed dike riprap would provide new habitat that would be colonized by a diverse assemblage of marine organisms at a higher biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and Associates, 2002) than that found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and Associates, 2002), based on observed biomass of organisms in/on those habitats. No dredging would occur for Berth 102 construction. Although only a small proportion of the soft bottom in the West Basin has been affected by the dredging, fill and pile placement, the loss of benthic community in the West Basin or the Harbor would be considered a significant impact under Alternative 4.

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 similar to the proposed Project.

Removal of sediments containing accumulated contaminants through dredging for the wharf work at Berth 100 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 activities for Alternative 4 would be the same as for the proposed Project.

Fish in the water column and on or near the bottom would have been temporarily disturbed by the dredging and wharf construction activities as a result of turbidity, noise, displacement, and vibration during Phase I construction. 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

1 construction could be temporarily disturbed by construction activities, but any individuals  
2 present would likely avoid the work area. Few, if any, would be present based on survey  
3 data from 2000 (MEC and Associates, 2002). Construction activities had not interfered  
4 with marine mammal foraging because the disturbances were in localized areas and large  
5 foraging areas would remain available to them elsewhere in the West Basin and  
6 throughout the Harbor.

### 7 **Wharf and Backland Construction**

8 For Alternative 4, construction of a new 2,125-foot wharf at Berths 100-102 would add  
9 new rock dike hard substrate habitat. Phase I added 88,000 cy of rock dike. During pile  
10 placement at Berth 102, a small amount of soft-bottom habitat (approximately  
11 1,725 square feet or 0.04 acres) would be displaced with hard substrate (piles). Marginal  
12 aquatic habitat benefit would accrue from the small amount of new hard substrate created  
13 under Alternative 4.

14 As with the proposed Project, the construction of wharf and container terminal facilities  
15 on newly created fill (by the Channel Deepening Project) under Alternative 4, as well as  
16 construction on previously developed areas, could affect biological resources through  
17 (1) noise and vibration and (2) runoff of pollutants. Turbidity, noise, and vibration  
18 (primarily from pile driving) would likely cause most fish and birds to temporarily avoid  
19 the immediate construction area. Fish and bird populations would not be adversely  
20 affected because the small number of individuals moving into other areas of the West  
21 Basin, the short duration of the disturbance, and the small area affected would not  
22 substantially disrupt West Basin biological communities. Backland construction would  
23 have minimal effect on terrestrial biota because the species present are non-native and/or  
24 adapted to use of developed sites. Disturbances to marine species would be temporary,  
25 and the animals present could move to other nearby areas for the duration of the  
26 disturbance. Consequently, biological communities in this industrial area would not be  
27 substantially disrupted.

28 Runoff of pollutants from Alternative 4 backland construction activities would be  
29 minimized through use of BMPs (see Section 3.14), and the low concentrations that could  
30 enter Harbor waters would not adversely affect marine organisms.

### 31 **Accidents**

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

36 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
37 dredging and disposal of the material are unlikely to occur during Alternative 4  
38 construction (see Section 3.14 **Impact WQ-1d**) and would not adversely affect aquatic  
39 biota to the degree that West Basin biological communities are substantially disrupted.  
40 Any such spills would be small and cleaned up immediately, resulting in loss of few  
41 marine organisms and causing no adverse community effects. A larger spill that could  
42 have locally substantial effects on biological resources is not expected to occur, even  
43 under reasonable worst-case conditions (see Section 3.8, Hazards). Accidental spills of  
44 pollutants during construction on land would be small because large quantities of such  
45 substances would not be used during construction. These spills would be contained and  
46 cleaned up with no runoff to Harbor waters (see Section 3.14).

## CEQA Impact Determination

Phase I construction activities on the backlands, as applied to Alternative 4, extended beyond the CEQA baseline area, but did not result in substantial disruption of local biological communities for the reasons described above; and impacts, therefore, were less than significant. Similarly, future backlands construction activity would not disrupt local biological communities. However, the loss of approximately 1.34 acres of soft-bottom habitat in the West Basin under Phase I and the minor loss under Phase II would represent a significant impact to the benthic community. Runoff of pollutants from backland construction activities did not and 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 3.14.4.3 for a list of measures). Accidental spills from equipment during dredging and wharf construction would not substantially disrupt local biological communities because spills, if any, would be small, contained, cleaned up immediately, and affect only a few common marine organisms. Thus, only localized effects that are less than significant occurred or would occur. 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*

**MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for detailed description of this measure).

### *Residual Impacts*

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

## NEPA Impact Determination

In-water construction in the West Basin under Alternative 4 would result in a loss of benthic communities, as described above; therefore, impacts would be significant. Although backland construction at the Project site would occur on a larger area than would occur under the NEPA baseline (by 13 acres), there are no local biological communities on the Project site that could be adversely affected; consequently, backland construction under Alternative 4 would not result in significant biological resource impacts under NEPA.

### *Mitigation Measures*

**MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for detailed description of this measure).

### *Residual Impacts*

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

1                   **Impact BIO-5: Alternative 4 would result in a permanent loss of**  
2                   **marine habitat would occur.**

3                   Dike placement and fill in the West Basin occurred in Phase I. Additional wharf  
4                   construction would occur at Berth 102 and would include pile driving, but would not  
5                   require dike or fill placement. Placement of dike and fill in Phase I caused a loss of  
6                   1.3 acres of aquatic habitat, including water column and soft bottom, and additional pile  
7                   placement at Berth 102 would also cause a small loss of such habitat (approximately  
8                   1,725 square feet or 0.04 acres).

9                   **CEQA Impact Determination**

10                  Alternative 4 construction occurred beyond the CEQA baseline area into the West  
11                  Basin and the placement of dike and fill at Berth 100 (in Phase I) caused a permanent  
12                  loss of 1.3 acres of aquatic habitat in the Los Angeles Inner Harbor (southern West  
13                  Basin), and wharf construction at Berths 102 would cause a small loss of marine  
14                  habitat (0.04 acres), as described above, and this impact is considered significant  
15                  under CEQA.

16                  *Mitigation Measures*

17                  **MM BIO-1** applies to this impact to marine habitat. However, because this  
18                  alternative would result in less Inner Harbor fill than the proposed Project, fewer  
19                  mitigation credits apply. Mitigation for the filling of approximately 1.34 acres of  
20                  Inner Harbor marine habitat (1.3 acres under Phase I, as applied to Alternative 4 and  
21                  0.04 acres from pile placement for Berth 102 in Phase II) requires approximately 0.67  
22                  Outer Harbor credit from either the Bolsa Chica Mitigation Agreement or the Outer  
23                  Harbor Mitigation Bank. This mitigation measure fully offsets Alternative 4 (Phase I  
24                  and Phase II) impacts of the loss of general marine habitat (see **Impact BIO-5**). No  
25                  mitigation is required for impacts to natural habitats, special aquatic sites, or plant  
26                  communities.

27                  *Residual Impacts*

28                  No residual impacts would occur.

29                  **NEPA Impact Determination**

30                  Alternative 4 development would include in-water construction that is not included in  
31                  the NEPA baseline. Under Alternative 4, Phase I construction of a dike and fill  
32                  caused a permanent loss of 1.34 acres of marine habitat in the Los Angeles Inner  
33                  Harbor, and wharf construction at Berths 102 would cause a small loss of marine  
34                  habitat (0.04 acres), as described above, and this impact is considered significant  
35                  under NEPA.

36                  *Mitigation Measures*

37                  **MM BIO-1** applies to this impact to marine habitat. However, because this  
38                  alternative results in less Inner Harbor fill than the proposed Project would, fewer  
39                  mitigation credits would apply. Mitigation for the filling of approximately 1.34 acres  
40                  of Inner Harbor marine habitat (1.3 acres under Phase I, as applied to Alternative 4  
41                  and 0.04 acres from pile placement for Berth 102 in Phase II) requires approximately  
42                  0.67 Outer Harbor credit from either the Bolsa Chica Mitigation Agreement or the  
43                  Outer Harbor Mitigation Bank. This mitigation measure fully offsets Alternative 4  
44                  (Phase I) impacts of the loss of general marine habitat (see **Impact BIO-5**). No

1 mitigation is required for impacts to natural habitats, special aquatic sites, or plant  
2 communities.

3 *Residual Impacts*

4 No residual impacts would occur.

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

9 As with the proposed Project, operation of new container terminal facilities in the West  
10 Basin under Alternative 4 would not adversely affect any of the state- or federally listed,  
11 or special concern bird species listed in Table 3.3-1. Those species that currently use the  
12 West Basin area for foraging or resting could continue to do so because Alternative 4  
13 would not appreciably change the industrial activities in the West Basin or cause a loss of  
14 habitat for those species. Operation of the backland facilities (e.g., cranes and container  
15 handling/transfers) would not measurably change the numbers or species of common  
16 birds in that area and, thus, would not affect peregrine falcon foraging. Perching  
17 locations for birds such as the California brown pelican would still be available. The  
18 increase in vessel traffic of one vessel every 2 days or so would cause a short interval of  
19 disturbance throughout the route from Angels Gate to Berths 97-109 in the West Basin,  
20 but would not result in a loss of habitat or individuals for sensitive birds that use the  
21 water surface for resting or foraging.

22 An estimated 208 additional vessel calls per year above the CEQA and NEPA baseline  
23 ship calls of zero to the Port would result from Alternative 4. Underwater sound from  
24 these vessels or tug boats used to maneuver them to the berth would add to the existing  
25 vessel traffic noise in the Harbor. Because a doubling in the number of vessels (noise  
26 sources) in the Harbor would be necessary to increase the overall underwater sound level  
27 by 3 dBA (FHWA, 1978), the small increase in vessels relative to the total using the  
28 Harbor (2,850 in 2004) would not result in a measurable change in overall noise. Adding  
29 one vessel transit every 2 days or so will not adversely affect marine mammals in the  
30 Outer Harbor, Main Channel, and the West Basin because the transit distance would be  
31 short and infrequent, few individuals would be affected (large numbers are not present in  
32 the Harbor), sea lions would be expected to avoid sound levels that could cause damage  
33 to their hearing (as described in **Impact BIO-1a**), and overall underwater noise levels  
34 would not be measurably increased. Vessels approaching Angels Gate would pass  
35 through nearshore waters, and sound from their engines and drive systems could disturb  
36 marine mammals that happen to be nearby. However, few individuals would be affected  
37 because the animals are generally sparsely distributed (i.e., have densities of less than  
38 five individuals per 100 square km [Forney et al., 1995]), the animals would likely move  
39 away from the sound as it increases in intensity from the approaching vessel, and  
40 exposure would be of short duration. Noise levels associated with vessel traffic,  
41 including near heavily used ferry terminals, generally range between 130 and 136 dB  
42 (WSDOT, 2006), which are below the injury threshold of 180 dB<sub>rms</sub>.

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

45 The addition of 208 vessel calls under Alternative 4 to the Port would have a low  
46 probability of harming endangered, threatened, or species of concern, such as marine

1 mammals and sea turtles. Specifically, in regard to vessel collisions with whales in  
2 California coastal waters, the large amount of vessel traffic along the coast has resulted in  
3 few (fewer than three per year on average) reported whale strikes over the past 25 years.  
4 Vessel speed seems to influence whale/ship collision incidences, and such strikes, if any  
5 were to occur, would likely be fatal to the whales because unmitigated vessel speeds are  
6 generally above 13 knots in the coastal shipping lanes. As discussed in Section 3.3.2.5,  
7 NOAA Fisheries recommends that speed restrictions in the range of 10 to 13 knots be  
8 used where appropriate, feasible, and effective, in areas where reduced speed is likely to  
9 reduce the risk of ship strikes and facilitate whale avoidance.

## 10 CEQA Impact Determination

11 Terminal activity under Alternative 4 would be greater than the CEQA baseline;  
12 however, operational activities would result in no loss of habitat for rare, threatened,  
13 endangered, protected, or candidate species, or Species of Special Concern. No  
14 impacts to critical habitat would occur because no critical habitat is present.

15 Increased ship call, however, may affect some species. Underwater sound from  
16 Alternative 4-related vessels would affect few, if any, marine mammals for the  
17 reasons described above; therefore, impacts would be less than significant under  
18 CEQA.

19 Container ships transiting the coastal waters of Southern California could potentially  
20 cause harm to endangered, threatened, or species of concern, such as marine  
21 mammals and sea turtles, from vessel collisions. Impacts of Alternative 4-related  
22 vessel traffic on marine mammals would be considered less than significant because  
23 of the low probability of vessel strikes, and Alternative 4 vessel strikes would not be  
24 expected to occur. As discussed above, fewer than three vessel strikes with whales  
25 are reported on average per year for the California coast. Very few ship strikes  
26 involving pinnipeds have been reported over the past 28 years by the Santa Barbara  
27 Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been reported  
28 in the area, although an olive ridley sea turtle stranded in Santa Barbara in 2003  
29 showed signs of blunt force trauma consistent with a vessel strike (Santa Barbara  
30 Marine Mammal Center, 1976–2004). No collisions have been reported between any  
31 oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002), although an  
32 oil supply vessel struck and presumably killed an adult male northern elephant seal in  
33 the Santa Barbara Channel in June 1999 (Minerals Management Service, 2001).

34 Although the likelihood of such a collision is very low, such collisions occur and may  
35 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
36 although considered less than significant because of the low probability of vessel  
37 strikes, any increase in vessel traffic caused by the project may incrementally  
38 increase the potential for whale strikes.

### 39 *Mitigation Measures*

40 Although the likelihood of a collision between a vessel and marine mammals is very  
41 low, the following measure would further reduce potential impacts:

42 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at Berths 97-**  
43 **109 shall comply with the expanded VSRP of 12 knots between 40**  
44 **nm from Point Fermin and the Precautionary Area in the**  
45 **following implementation schedule:**

- 46 ■ 100 percent starting 2009

1 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
2 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
3 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
4 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
5 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
6 40-nm zone extends to the Channel Island area.

### 7 *Residual Impacts*

8 Residual impacts would be less than significant.

## 9 **NEPA Impact Determination**

10 Operation of facilities on the terminal backlands under Alternative 4 would be greater  
11 than under the NEPA baseline due to a larger backland area and higher throughput.  
12 Terminal activity under Alternative 4 would be greater than the NEPA baseline;  
13 however, operational activities would result in no loss of habitat for rare, threatened,  
14 endangered, protected, or candidate species, or Species of Special Concern. No  
15 impacts to critical habitat would occur because no critical habitat is present.

16 Increased ship call, however, may affect some species. Underwater sound from  
17 Alternative 4-related vessels would affect few, if any, marine mammals for the  
18 reasons described above; therefore, impacts would be less than significant under  
19 NEPA.

20 Container ships transiting the coastal waters of Southern California could potentially  
21 cause harm to endangered, threatened, or species of concern, such as marine  
22 mammals and sea turtles, from vessel collisions. Impacts of Alternative 4-related  
23 vessel traffic on marine mammals would be considered less than significant because  
24 of the low probability of vessel strikes, and vessel strikes under Alternative 4 would  
25 not be expected to occur. As discussed above, fewer than three vessel strikes with  
26 whales are reported on average per year for the California coast. Very few ship  
27 strikes involving pinnipeds have been reported over the past 28 years by the Santa  
28 Barbara Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been  
29 reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
30 2003 showed signs of blunt force trauma consistent with a vessel strike (Santa  
31 Barbara Marine Mammal Center, 1976–2004). No collisions have been reported  
32 between any oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002),  
33 although an oil supply vessel struck and presumably killed an adult male northern  
34 elephant seal in the Santa Barbara Channel in June 1999 (Minerals Management  
35 Service, 2001).

36 Although the likelihood of such a collision is very low, such collisions occur and may  
37 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
38 although considered less than significant because of the low probability of vessel  
39 strikes, any increase in vessel traffic caused by the project may incrementally  
40 increase the potential for whale strikes.

1                    *Mitigation Measures*

2                    Although the likelihood of a collision between a vessel and marine mammals is very  
3                    low, the following measure would further reduce potential impacts:

4                    **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
5                    **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
6                    **between 40 nm from Point Fermin and the Precautionary Area in**  
7                    **the following implementation schedule:**

8                    ■ **100 percent starting 2009**

9                    The average cruise speed for a container ship ranges from about 18 to 25 knots,  
10                    depending on the size of a ship (larger ships generally cruise at higher speeds). As  
11                    discussed previously, NOAA Fisheries recommends that speed restrictions in the  
12                    range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
13                    Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
14                    40-nm zone extends to the Channel Island area.

15                    *Residual Impacts*

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

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

22                    **Essential Fish Habitat**

23                    Operation of terminal facilities in the West Basin under Alternative 4 would have  
24                    minimal effects on EFH. Although, Alternative 4 vessels would add to the number of  
25                    noise events, the vessels would not substantially add to the overall underwater noise level.  
26                    The addition of one vessel trip every 2 days on average would not adversely affect FMP  
27                    species present in the Outer Harbor, Main Channel, or the West Basin because the  
28                    additional trips proposed for the alternative are infrequent. Schooling fish, such as  
29                    sardines and anchovy, would likely ignore the ship movements and sound, or temporarily  
30                    move out of the way. Other FMP species are rare in the port, and vessel noise would not  
31                    result in any but temporary effects on their distribution in the Port in spite of a projected  
32                    additional 208 visits to the existing number of ships in the West Basin (332 ships in  
33                    2001). In recent history, the Port has witnessed an improvement in fish abundance  
34                    including EFH for FMP species (MEC, 2002), even though there has been increased  
35                    vessel traffic in the Harbor. Therefore, it is unlikely that additional ship calls would  
36                    affect FMP species, and additional ship calls would not adversely affect EFH for any  
37                    species in the Harbor. Operation of Alternative 4 facilities on land would not affect EFH  
38                    because none is present on land. Runoff from the new facilities would not substantially  
39                    reduce or alter EFH in Harbor waters because water quality standards for protection of  
40                    marine life would not be exceeded (see Section 3.14, Water Quality, Sediments, and  
41                    Oceanography).

42                    **Natural Habitat or Plant Community**

43                    As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
44                    could be affected by operation of the terminal under Alternative 4. No wetlands or

1 eelgrass are present in the Project area, and those in other areas of the Harbor are not  
2 located in or near (over 1 mile away) the channels used for vessel movement in the  
3 Harbor. No mudflats are present at the proposed Project site, and the small increase in  
4 vessel traffic would not affect the mudflats along the Main Channel. Thus, these habitats  
5 would not be affected by operational activities in the West Basin or vessel transit through  
6 the Harbor to the West Basin.

### 7 **CEQA Impact Determination**

8 Terminal activity under Alternative 4 would be greater than the CEQA baseline;  
9 however, operational activities on land and in the water under Alternative 4 would  
10 not substantially reduce or alter EFH for the reasons described above, resulting in  
11 less than significant impacts to EFH under CEQA. No SEAs, natural plant  
12 communities, wetlands, or eelgrass are present, and the mudflats along the Main  
13 Channel would not be affected by project-related vessel traffic, resulting in no  
14 impacts under CEQA.

#### 15 *Mitigation Measures*

16 No mitigation is required.

#### 17 *Residual Impacts*

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

### 20 **NEPA Impact Determination**

21 Under Alternative 4, operational activities in the water would not substantially reduce  
22 or alter EFH for the reasons described above, resulting in less than significant  
23 impacts to EFH under NEPA. Operational activities in the water would not affect  
24 SEAs, natural plant communities, wetlands, eelgrass, and mudflats because none are  
25 present where in-water activities would occur as well as no impacts to mudflats along  
26 the Main Channel because project-related vessel traffic would not affect them.  
27 Alternative 4 upland operational activities would be more intensive than operational  
28 activities under the NEPA baseline, but there are no EFH or natural habitats on the  
29 Project site; consequently, backland operations would not result in significant  
30 impacts under NEPA.

#### 31 *Mitigation Measures*

32 No mitigation is required.

#### 33 *Residual Impacts*

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

### 36 **Impact BIO-3b: Operations activities would not interfere with wildlife** 37 **movement/migration corridors.**

38 As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
39 migration corridors are present in the Project area, either on land or in the water.  
40 Migration by bird species that visit or pass through the terminal would not be affected by  
41 the changes in terminal operations because the new structures would not impede their  
42 movement. Operation of the backland facilities under Alternative 4, including the

1 bridges over the Southwest Slip, would not interfere with any terrestrial migration  
2 corridors because none are present in those areas. Terminal-related vessel traffic to and  
3 from the Harbor under Alternative 4 would not interfere with marine mammal migrations  
4 along the coast because these vessels would represent a small proportion (7.3 percent) of  
5 the total Port-related commercial traffic in the area, and each vessel would have a low  
6 probability of encountering migrating marine mammals during transit through coastal  
7 waters because these animals are generally sparsely distributed.

### 8 **CEQA Impact Determination**

9 Although terminal operations would extend over a larger area and be more intensive  
10 than the CEQA baseline, no wildlife movement or migration corridors would be  
11 affected by Alternative 4 during operations activities on land and in the water,  
12 resulting in no impacts under CEQA.

#### 13 *Mitigation Measures*

14 No mitigation is required.

#### 15 *Residual Impacts*

16 No residual impacts would occur.

### 17 **NEPA Impact Determination**

18 Operation of terminal facilities under Alternative 4 would not affect any wildlife  
19 movement or migration corridors in the water for the reasons described above;  
20 therefore, no impacts would occur under NEPA. Operational activities on terminal  
21 backlands under Alternative 4 would be more intensive than operational activities  
22 under the NEPA baseline, but there are no migration corridors on the Project site;  
23 consequently, backland operations would not result in significant impacts under  
24 NEPA.

#### 25 *Mitigation Measures*

26 No mitigation is required.

#### 27 *Residual Impacts*

28 No residual impacts would occur.

### 29 **Impact BIO-4b: Operation of the new facilities would not** 30 **substantially disrupt local biological communities.**

31 Operational or permanent effects associated with Alternative 4 would be similar to those  
32 described for the proposed Project in **Impact BIO-4b** due to similarities in terminal  
33 operations, features, throughput, and size. Vessel traffic to and from the terminal  
34 wharves would have minimal direct effects on benthic communities in the West Basin as  
35 a result of propeller wash (USACE and LAHD, 1992), and vessel traffic effects on water  
36 column species would be similar to those of the proposed Project (see **Impact BIO-4b**).

37 However, as described for the proposed Project, if a vessel accident occurs and fuels spill  
38 into Harbor or ocean waters, they could harm biological resources, depending on the  
39 extent of the spill. Such a vessel spill would be considered to be a significant impact due  
40 to the potential for harm to biological resources.

1 Similar to the proposed Project, accidental spills in upland areas are not expected to result  
2 in significant impacts to biological resources.

3 Runoff of pollutants to the Harbor from the new facilities on existing land would be  
4 similar to those described for the proposed Project in **Impact BIO-4b** because the  
5 terminal acreage would be similar. Runoff of pollutants would have no adverse effects  
6 on water quality (Section 3.14) and, thus, would not adversely affect West Basin  
7 biological communities (fish, benthos, and plankton). Such runoff could occur during  
8 dry weather and from storm events. The latter is periodic, primarily during the winter  
9 rainy season, and generally of short duration.

10 Terminal lighting under Alternative 4 would be similar to that of the proposed Project  
11 because the terminals would have similar acreage. The amount of light at the terminal site  
12 would not substantially increase. Because the lighting would be in industrial areas, the  
13 light would not substantially affect terrestrial wildlife habitat or the species present. Most  
14 of the new lights would be located away from the edge of the water (throughout the  
15 backlands), and this would minimize effects on marine organisms so that biological  
16 communities would not be substantially disrupted.

### 17 **CEQA Impact Determination**

18 There is a remote potential for an accidental vessel spill to occur during Project  
19 operation, which could harm biological resources in the Harbor or ocean. Such a  
20 spill would be considered significant. Upland spills from terminal operations are not  
21 expected to result in significant impacts for the reason discussed previously.

22 Although terminal operations would extend over a larger area and be more intensive  
23 than the CEQA baseline, terminal operations under Alternative 4 would not  
24 substantially disrupt West Basin and Harbor biological communities through runoff  
25 of contaminants. Existing runoff and storm drain discharge controls as well as  
26 conditions of all terminal-specific permits would be implemented (see Section 3.14).  
27 The presence of new wharf structures, increased vessel traffic, or new lighting would  
28 not substantially disrupt West Basin and Harbor biological communities, for the  
29 reasons described above. Impacts, therefore, would be less than significant under  
30 CEQA.

### 31 *Mitigation Measures*

32 No mitigation, beyond implementation of measures required under existing  
33 regulations, is available to fully mitigate potential impacts related to potential  
34 accidental spills from container vessels during project operation.

### 35 *Residual Impacts*

36 Residual impacts related to potential vessel spills would be significant.

37 Residual impacts would be less than significant for other in-water operations for  
38 operation of land facilities.

### 39 **NEPA Impact Determination**

40 There is a remote potential for an accidental vessel spill to occur during Project  
41 operation, which could harm biological resources in the Harbor or ocean. Such a  
42 spill would be considered significant. Upland spills from terminal operations are not  
43 expected to result in significant impacts for the reason discussed above.

1 Under Alternative 4, the new wharf structures in the water column, shade from the  
2 new bridges, and increased vessel traffic would not substantially disrupt West Basin  
3 and Harbor biological communities for the reasons described above. Consequently,  
4 impacts to biological communities would be less than significant under NEPA.  
5 Although backland operation of facilities on the Project site would be more intensive  
6 than the NEPA baseline due to higher backland acreage (by 13 acres) and increased  
7 throughout, there are no biological communities on the Project site that could be  
8 adversely affected. Therefore, upland operations would not result in significant  
9 impacts under NEPA.

#### 10 *Mitigation Measures*

11 No mitigation, beyond implementation of measures required under existing  
12 regulations, is available to fully mitigate potential impacts related to potential  
13 accidental spills from container vessels during project operation.

#### 14 *Residual Impacts*

15 Residual impacts related to potential vessel spills would be significant.

16 Residual impacts would be less than significant for other in-water operations for  
17 operation of land facilities.

### 18 **Impact BIO-4c: Operation of the new facilities in the West Basin has** 19 **a low potential to introduce non-native species into the Harbor,** 20 **which could disrupt local biological communities.**

21 The amount of ballast water discharged into the West Basin and, thus, the potential for  
22 introduction of invasive exotic species (LAHD, 1999) from Alternative 4 operations  
23 would be less than those described for the proposed Project due to fewer ship calls.  
24 These vessels would come primarily from outside the EEZ and would be subject to  
25 regulations to minimize the introduction of non-native species in ballast water (see  
26 Section 3.3.3.8). Thus, ballast water discharges during cargo transfers in the Port would  
27 be unlikely to contain non-native species.

28 Non-native algal species can also be introduced via vessel hulls. As described for the  
29 proposed Project in **Impact BIO-4b**, the risk for introduction of these species is low.  
30 *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC  
31 and Associates, 2002), and *Sargassum filicinum* discovered in 2003 (MBC, 2003), may  
32 be introduced and/or spread as a result of hull fouling or ballast water, and therefore have  
33 the potential to increase in the Harbor via vessels traveling between ports in the EEZ, as  
34 described for the proposed Project. Invertebrates attached to vessel hulls could be  
35 introduced in a similar manner.

36 Terminal operations under Alternative 4 would result in a smaller increase  
37 (approximately 7.3 percent) in vessel traffic compared to the total number of vessels  
38 entering the Los Angeles Harbor as for the proposed Project (approximately 8 percent).  
39 Considering this and the ballast water regulations currently in effect, the potential for  
40 introduction of additional exotic species via ballast water would be low from vessels  
41 entering from or going outside the EEZ. The potential for introduction of exotic species  
42 via vessel hulls would be increased in proportion to the increase in number of vessels.  
43 However, vessel hulls are generally coated with antifouling paints and cleaned at  
44 intervals to reduce the frictional drag from growths of organisms on the hull (Global  
45 Security, 2007), which would reduce the potential for transport of exotic species. For

1 these reasons, Alternative 4 has a low potential to increase the introduction of non-native  
2 species into the Harbor, which could substantially disrupt local biological communities,  
3 but such effects could still occur.

#### 4 **CEQA Impact Determination**

5 Alternative 4 would increase the annual ship calls relative to the CEQA baseline.  
6 Operation of the Alternative 4 facilities has the potential to result in the introduction  
7 of non-native species into the Harbor via ballast water or vessel hulls that could  
8 substantially disrupt local biological communities. Therefore, impacts would be  
9 significant under CEQA.

#### 10 *Mitigation Measures*

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

#### 15 *Residual Impacts*

16 Residual impacts would be significant.

#### 17 **NEPA Impact Determination**

18 Alternative 4 would increase the annual ship calls relative to the NEPA baseline.  
19 Operation of the Alternative 4 facilities has the potential to result in the introduction  
20 of non-native species into the Harbor via ballast water or vessel hulls that could  
21 substantially disrupt local biological communities. Therefore, impacts would be  
22 significant under NEPA.

#### 23 *Mitigation Measures*

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

#### 28 *Residual Impacts*

29 Residual impacts would be significant.

### 30 **3.3.4.3.2.5 Alternative 5 – Reduced Construction and Operation: Phase I** 31 **Construction Only**

32 Under Alternative 5, the Phase I container terminal that was completed in 2003 (as  
33 allowed by the ASJ and USACE permit) and that is currently operational would continue  
34 to operate at levels similar to today. The Phase I construction included 72 acres of  
35 backlands, dredging, dike placement, fill, pile placement, and a new 1,200-foot wharf.  
36 Construction impacts under Phase I would apply to this alternative. The total acreage of  
37 backlands under this alternative would be 72 acres. Alternative 5 would accommodate a  
38 total of 630,000 TEUs annually and require 104 annual ship calls.

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

5                   Anticipated impacts to threatened or endangered species or their habitat from dredging,  
6                   dike placement, fill, pile installation, and wharf improvements would be the same as  
7                   Phase I of the proposed Project and would be unlikely to affect such resources through  
8                   temporary increases in noise, vibration, and turbidity as well as the potential for  
9                   displacement of individuals from the work area as described in **Impact BIO-1a** for the  
10                  proposed Project. No critical habitat for any federally listed species is present in the  
11                  Alternative 5 Project area. Foraging by the California least tern, California brown  
12                  pelican, or any other special-status species in Table 3.3-1 could continue during  
13                  construction with no adverse effects to the species. Individuals using the West Basin  
14                  could use other areas in the Harbor if they choose to avoid the immediate construction  
15                  work area. No individuals would be lost, and their populations would not be adversely  
16                  affected by construction activities.

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

20                  Transport of rock for the wharf work at Berth 100 is the same as for the proposed Project.

21                  The USACE has made a “no effect” determination for federally listed species in the  
22                  Project area in accordance with requirements of Section 7 of the ESA.

23                                   **CEQA Impact Determination**

24                                   Although Alternative 5 construction extended beyond the CEQA baseline area,  
25                                   construction activities on land and in the water under Alternative 5 did not result in a  
26                                   loss of individuals or habitat for rare, threatened, endangered, protected, or candidate  
27                                   species, or Species of Special Concern, and sound pressure waves from construction  
28                                   activities in the water would not injure marine mammals. No critical habitat for  
29                                   federally listed species is present, and no impacts would occur. Impacts, therefore,  
30                                   would be less than significant under CEQA.

31                                   *Mitigation Measures*

32                                   No mitigation is required.

33                                   *Residual Impacts*

34                                   Residual impacts would be less than significant.

35                                   **NEPA Impact Determination**

36                                   As described above, in-water construction activities of Alternative 5 did not result in  
37                                   loss of individuals or habitat for rare, threatened, endangered, protected, or candidate  
38                                   species, or Species of Special Concern, and sound pressure waves from construction  
39                                   activities in the water would not injure marine mammals; therefore, impacts would be  
40                                   less than significant under NEPA. Backlands under Alternative 5 would be smaller  
41                                   than those of the NEPA baseline (by 45 acres), and no rare, threatened, endangered,  
42                                   protected, or candidate species, or Species of Special Concern or their habitat are  
43                                   present on the Project site. Consequently, construction activities on the backlands

1 under Phase I, as applied to Alternative 5, did not, therefore, result in significant  
2 impacts under NEPA.

### 3 *Mitigation Measures*

4 No mitigation is required.

### 5 *Residual Impacts*

6 Residual impacts are less than significant.

## 7 **Impact BIO-2a: Construction activities would not result in a** 8 **substantial reduction or alteration of a state-, federally, or locally** 9 **designated natural habitat, special aquatic site, or plant community,** 10 **including wetlands.**

### 11 **Essential Fish Habitat**

12 Construction of improvements for Alternative 5 did not affect FMP species that do not  
13 occur in the West Basin and had minimal effects on those that are rare or uncommon,  
14 such as Pacific mackerel and English sole (MEC and Associates, 2002) because few, if  
15 any, individuals frequent the disturbance area. Effects of dredging, dike and fill  
16 placement, pile installations, and wharf construction at Berth 100 on FMP species are  
17 similar to those described for the proposed Project. The loss of water column habitat due  
18 to placement of fill (1.3 acres) in Phase I resulted in a loss of habitat and food sources for  
19 the FMP species that use the southern West Basin. The loss of habitat would not likely  
20 have a measurable effect on sustainable fisheries because it would not measurably reduce  
21 the stocks of these species in the areas where they are harvested (primarily offshore in the  
22 open ocean). Loss of habitat for pelagic fish species that might use the West Basin,  
23 particularly northern anchovy, is considered a substantial effect that would be mitigated  
24 in accordance with established mitigation requirements, as described in **Impact BIO-5**.

25 Construction activities on upland areas under Alternative 5 (including the single bridge  
26 across the Southwest Slip) had no direct effects on EFH, which is located in the water.  
27 Runoff of sediments and contaminants from such construction, however, could have  
28 entered Harbor waters. As discussed in Section 3.14, implementation of sediment control  
29 measures (e.g., sediment barriers and sedimentation basins) and BMPs minimize the  
30 impacts of such runoff.

### 31 **Natural Habitat or Plant Community**

32 No kelp or eelgrass beds are present in the Alternative 5 area, and those in other parts of  
33 the Harbor were not affected by construction activities for Phase I, as applied to  
34 Alternative 5, due to their distance from the work area. No designated SEAs, including  
35 the least tern nesting site on Pier 400, were affected by construction under this alternative  
36 because no Phase I construction took place at or near this SEA. As described for the  
37 proposed Project, no wetlands or mudflats are present in the Alternative 5 Project area,  
38 and those in other areas of the Harbor were not affected by Phase I construction activities  
39 in the West Basin due to distance from the Alternative 5 Project site (more than 3 miles).

### 40 **CEQA Impact Determination**

41 Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to  
42 Alternative 5) resulted in a permanent loss of Inner Harbor marine habitat and a

1 reduction of EFH in the West Basin, a significant impact under CEQA. Although  
2 upland areas under this alternative are greater than those of the CEQA baseline,  
3 construction activities on the backlands, including the bridge over the Southwest Slip,  
4 had no direct impacts on EFH or other natural habitats because none were present at  
5 the site. Indirect impacts through runoff of sediments during storm events would be  
6 less than significant because such runoff would be controlled as described for water  
7 quality in Section 3.14 (e.g., Project-specific SWPPP with BMPs such as sediment  
8 barriers and sedimentation basins). No impacts to SEAs, kelp beds, eelgrass beds,  
9 wetlands, or mudflats occurred during Phase I construction because none of these  
10 habitats are present at or near the proposed Project site.

#### 11 *Mitigation Measures*

12 **MM BIO-1** applies to this EFH impact. However, because construction of this  
13 alternative (in Phase I) resulted in less Inner Harbor fill than the proposed Project  
14 would, fewer mitigation credits apply. Mitigation of the filling of approximately  
15 1.3 acres of Inner Harbor marine habitat (under Phase I, as applied to Alternative 5)  
16 requires approximately 0.65 Outer Harbor credit from either the Bolsa Chica  
17 Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation  
18 measure fully offsets Alternative 5 impacts to EFH sustainable fisheries and loss of  
19 general marine habitat (see **Impact BIO-5**). No mitigation is required for impacts to  
20 natural habitats, special aquatic sites, or plant communities.

#### 21 *Residual Impacts*

22 The mitigation credits were acquired prior to construction of Phase I and  
23 compensated fully for the loss of EFH as a result of Alternative 5, leaving no residual  
24 impact. No residual impacts would occur for natural habitats, special aquatic sites, or  
25 plant communities.

#### 26 **NEPA Impact Determination**

27 Dike and fill placement in the southern West Basin under Phase I resulted in a  
28 permanent loss of 1.3 acres of Inner Harbor marine habitat and a reduction of EFH in  
29 the West Basin, which is considered to be a significant impact under NEPA. Impacts  
30 are less than significant for other in-water construction activities (e.g., dredging and  
31 wharf construction). Runoff of sediments from the Project backlands during storm  
32 events is less than significant because such runoff was controlled as described for  
33 water quality in Section 3.14 (e.g., Project-specific SWPPP with BMPs such as  
34 sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds,  
35 eelgrass beds, wetlands, or mudflats occurred because none are present at or near the  
36 Project site. Backland construction activities under Alternative 5 occurred on a  
37 smaller area than would occur under the NEPA baseline (72 acres vs. 117 acres), and  
38 construction BMPs further minimized impacts; consequently, Phase I backland  
39 construction did not result in significant impacts under NEPA.

#### 40 *Mitigation Measures*

41 **MM BIO-1** applies to this EFH impact. However, because construction of this  
42 alternative resulted in less Inner Harbor fill than the proposed Project would, fewer  
43 mitigation credits apply. Mitigation of the filling of approximately 1.3 acres of Inner  
44 Harbor marine habitat (under Phase I, as applied to Alternative 5) requires  
45 approximately 0.65 Outer Harbor credit from either the Bolsa Chica Mitigation  
46 Agreement or the Outer Harbor Mitigation Bank. This mitigation measure fully

1 offsets Alternative 5 impacts to EFH sustainable fisheries and loss of general marine  
2 habitat (see **Impact BIO-5**). No mitigation is required for impacts to natural habitats,  
3 special aquatic sites, or plant communities.

#### 4 *Residual Impacts*

5 The mitigation credits were acquired prior to Phase 1 construction and fully  
6 compensated for the loss of EFH as a result of the Alternative 5, leaving no residual  
7 impact.

### 8 **Impact BIO-3a: Construction activities would not interfere with** 9 **wildlife movement/migration corridors.**

10 Similar to the proposed Project in **Impact BIO-3a**, Alternative 5 construction activities  
11 on land and in the water would not affect wildlife movement/migration corridors.

### 12 **CEQA Impact Determination**

13 Although construction extended beyond the CEQA baseline, no wildlife movement  
14 or migration corridors were affected by Phase I construction, as applied to  
15 Alternative 5, either on land or in the water. Because of this, no impacts under  
16 CEQA occurred.

#### 17 *Mitigation Measures*

18 No mitigation is required.

#### 19 *Residual Impacts*

20 No residual impacts would occur.

### 21 **NEPA Impact Determination**

22 Dredging, dike and fill placement, pile installation, and general wharf construction  
23 in the water as well as upland terminal construction activities on the Project site did  
24 not affect wildlife movement or migration corridors for Phase I, as applied to  
25 Alternative 5; therefore, no impacts occurred under NEPA. Backland construction  
26 under Phase I, as applied to Alternative 5, occurred on a smaller site than would  
27 occur under the NEPA baseline (smaller by 45 acres), and as such, Phase I  
28 construction did not affect wildlife movement or migration corridors. Consequently,  
29 backland construction did not result in significant impacts under NEPA.

#### 30 *Mitigation Measures*

31 No mitigation is required.

#### 32 *Residual Impacts*

33 No residual impacts would occur.

### 34 **Impact BIO-4a: Construction activities would not substantially** 35 **disrupt local biological communities.**

36 Dredging, dike and fill placement, and pile installation that occurred for Berth 100  
37 construction under Phase I, as applied to Alternative 5, disturbed and removed  
38 approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I  
39 (Table 3.3-3). Benthic invertebrates (approximately 0.1 metric ton) living in and on the

1 sediments to be dredged or filled adjacent to the berths were lost from being dredged  
2 and/or covered with dike and fill, but the new dike riprap provided new habitat that has  
3 been colonized by a diverse assemblage of marine organisms presumably at a higher  
4 biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and Associates, 2002) than that  
5 found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and Associates, 2002), based on  
6 observed biomass of organisms in/on those habitats. Although only a small proportion of  
7 the soft bottom in the West Basin has been affected by the dredging and fill, and pile  
8 placement, the loss of benthic community in the West Basin and Harbor is considered a  
9 significant impact under Alternative 5.

10 During Phase I construction, effects of turbidity and resuspension of sediments  
11 containing contaminants on planktonic organisms were limited to the immediate vicinity  
12 of the dredging.

13 Removal of sediments containing accumulated contaminants through dredging for the  
14 wharf work at Berth 100 has provided benefits to the benthic community in the West  
15 Basin and the Harbor. Temporary disturbances to fish and marine mammals caused by  
16 dredging and wharf construction activities during Phase I (under Alternative 5) but were  
17 not significant.

18 Fish in the water column and on or near the bottom were temporarily disturbed by the  
19 dredging and wharf construction activities (under Phase I) as a result of turbidity, noise,  
20 displacement, and vibration as described for the proposed Project. Effects on fish  
21 populations in the Inner Harbor were short term and localized with no substantial  
22 disruption of local fish communities. Marine mammals, such as sea lions, in the West  
23 Basin at the time of construction could have been temporarily disturbed by construction  
24 activities, but individuals likely avoided the work area. Few, if any, marine mammals are  
25 present in the Project area, based on survey data from 2000 (MEC and Associates, 2002).  
26 Phase I construction activities did not interfere with marine mammal foraging because the  
27 disturbances were in localized areas and large foraging areas remained available to them  
28 elsewhere in the West Basin and throughout the Harbor.

### 29 **Wharf and Backland Construction**

30 For Alternative 5, as for the proposed Project, construction of the new 1,200-foot wharf  
31 at Berth 100 added new rock dike hard-substrate habitat. Marginal aquatic habitat benefit  
32 accrued from the small amount of new hard substrate created under Alternative 5 due to  
33 shading.

34 The construction of wharf and container terminal facilities on the terminal site under  
35 Alternative 5 could have affected biological resources through (1) noise and vibration and  
36 (2) runoff of pollutants. Turbidity, noise, and vibration (primarily from pile driving)  
37 would have likely caused most fish and birds to temporarily avoid the immediate  
38 construction area. Fish and bird populations were not adversely affected because the  
39 small number of individuals moving into other areas of the West Basin, the short duration  
40 of the disturbance, and the small area affected did not substantially disrupt West Basin  
41 biological communities. Backland construction had a minimal effect on terrestrial biota  
42 because the species present are non-native and/or adapted to use of developed sites.  
43 Disturbances to marine species were temporary, and the animals present were able to  
44 move to other nearby areas for the duration of the disturbance. Consequently, biological  
45 communities in this industrial area was not substantially disrupted during Phase I  
46 construction.

1 Runoff of pollutants from Alternative 5 backland construction activities was minimized  
2 through use of BMPs (see Section 3.14), and the low pollutant concentrations that could  
3 have entered Harbor waters did not adversely affect marine organisms.

#### 4 **Accidents**

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

9 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
10 dredging and disposal of the material were minimal during Phase I construction (see  
11 Section 3.14 **Impact WQ-1d**) and did not adversely affect aquatic biota to the degree that  
12 West Basin biological communities were substantially disrupted. Any such spills were  
13 small and cleaned up immediately, resulting in loss of few marine organisms and causing  
14 no adverse community effects. Accidental spills of pollutants during Phase I construction  
15 on land, if any, would have been small because large quantities of such substances are not  
16 to be used during construction. Such spills would have been contained and cleaned up with  
17 no runoff to Harbor waters (see Section 3.14).

#### 18 **CEQA Impact Determination**

19 Phase I construction activities of the backlands, as applied to Alternative 5, extended  
20 beyond the CEQA baseline area but did not result in substantial disruption of local  
21 biological communities for the reasons described above, and impacts under CEQA,  
22 therefore, were less than significant. However, the loss of approximately 1.3 acres of  
23 soft-bottom habitat in the West Basin represents a significant impact to the benthic  
24 community. Runoff of pollutants from backland construction activities did not  
25 disrupt biological communities in the West Basin and had only localized, short-term,  
26 less than significant impacts on marine organisms in the immediate vicinity of drain  
27 outlets, if any, due to implementation of runoff control measures that were part of  
28 Phase I construction (e.g., Project-specific SWPPP and BMPs such as sediment  
29 barriers and sedimentation basins; see Section 3.14.4.3 for a list of measures).  
30 Accidental spills from equipment during dredging and wharf construction would not  
31 have substantially disrupted local biological communities because spills, if any,  
32 would have been small, contained, cleaned up immediately, and would have affected  
33 only a few common marine organisms, if any. Thus, only localized effects that are  
34 less than significant occurred during Phase I construction. Accidental spills during  
35 construction on land did not reach Harbor waters due to the implementation of BMPs,  
36 and thus significant impacts on marine communities did not occur. No notice to  
37 proceed (with Phase I construction) was issued without approval of the specific  
38 SWPPP and BMPs.

#### 39 *Mitigation Measures*

40 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
41 detailed description of this measure), and was implemented for Phase I.

#### 42 *Residual Impacts*

43 The mitigation credits compensated for the loss of benthic community as a result of  
44 the Phase I, leaving no residual impact.

## NEPA Impact Determination

In-water construction in the West Basin under Alternative 5 resulted in the loss of benthic communities, as described above, and impacts, therefore, were significant. In addition, there are no local biological communities on the upland areas of the Project site that could have been adversely affected by backland construction. Consequently, Phase I construction, as applied to Alternative 5, would have resulted in significant biological resource impacts under NEPA.

### *Mitigation Measures*

**MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for detailed description of this measure), and was implemented for Phase I.

### *Residual Impacts*

The mitigation credits compensated for the loss of benthic community as a result of the Phase I, leaving no residual impact.

## **Impact BIO-5: Alternative 5 would result in a permanent loss of marine habitat would occur.**

Dike placement and fill in the West Basin occurred in Phase I (as applied to Alternative 5). No additional wharf construction would occur. Placement of dike and fill in Phase I caused a loss of 1.3 acres of aquatic habitat, including water column and soft bottom.

## CEQA Impact Determination

Alternative 5 construction occurred beyond the CEQA baseline area into the West Basin and the placement of dike and fill near Berth 100 under Phase I, as applied to Alternative 5, caused a permanent loss of 1.3 acres of aquatic habitat in the Los Angeles Inner Harbor (southern West Basin) as described above, and this impact is considered significant under CEQA.

### *Mitigation Measures*

**MM BIO-1** applies to this EFH impact. However, because construction of this alternative (Phase I) resulted in less Inner Harbor fill than the proposed Project would, fewer mitigation credits apply. Mitigation of the filling of approximately 1.3 acres of Inner Harbor marine habitat requires approximately 0.65 Outer Harbor credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation measure fully offsets Alternative 5 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*

Mitigation was applied prior to Phase I construction, and no residual impacts occurred.

## NEPA Impact Determination

Under Alternative 5, construction of a dike and fill in the West Basin in Phase I, as applied to Alternative 5, caused a permanent loss of 1.3 acres of marine habitat in the

1 Los Angeles Inner Harbor, as described above, and this impact is considered  
2 significant under NEPA.

### 3 *Mitigation Measures*

4 **MM BIO-1** applies to this EFH impact. However, because construction of this  
5 alternative (Phase I) resulted in less Inner Harbor fill than the proposed Project would,  
6 fewer mitigation credits apply. Mitigation of the filling of approximately 1.3 acres of  
7 Inner Harbor marine habitat (under Phase I, as applied to Alternative 5) requires  
8 approximately 0.65 Outer Harbor credit from either the Bolsa Chica Mitigation  
9 Agreement or the Outer Harbor Mitigation Bank. This mitigation measure fully  
10 offsets Alternative 5 impacts to EFH sustainable fisheries and loss of general marine  
11 habitat (see **Impact BIO-5**). No mitigation is required for impacts to natural habitats,  
12 special aquatic sites, or plant communities.

### 13 *Residual Impacts*

14 The mitigation credits fully compensated for the loss of EFH as a result of the  
15 Alternative 5, leaving no residual impact.

### 16 **Impact BIO-1b: Operations would not cause a loss of individuals or** 17 **habitat for a state- or federally listed endangered, threatened, rare,** 18 **protected, or candidate species, or a Species of Special Concern or** 19 **the loss of federally listed critical habitat.**

20 As with the proposed Project, operation of new container terminal facilities in the West  
21 Basin under Alternative 5 would not adversely affect any of the state- or federally listed,  
22 or special concern bird species listed in Table 3.3-1. Those species that currently use the  
23 West Basin area for foraging or resting could continue to do so because Alternative 5  
24 operations would not appreciably change the industrial activities in the West Basin or  
25 cause a loss of habitat for those species. Operation of the backland facilities (e.g., cranes  
26 and container handling/ transfers) would not measurably change the numbers or species  
27 of common birds in that area and, thus, would not affect peregrine falcon foraging.  
28 Perching locations for birds such as the California brown pelican would still be available.  
29 The increase in vessel traffic of one vessel every 3 or 4 days or so would cause a short  
30 interval of disturbance throughout the route from Angels Gate to Berths 97-109 in the  
31 West Basin, but would not result in a loss of habitat or individuals for sensitive birds that  
32 use the water surface for resting or foraging.

33 An estimated 104 additional vessel calls per year above the CEQA and NEPA baseline  
34 ship calls of zero to the Port would result from Alternative 5. Underwater sound from  
35 these vessels or tug boats used to maneuver them to the berth would add to the existing  
36 vessel traffic noise in the Harbor. Because a doubling in the number of vessels (noise  
37 sources) in the Harbor would be necessary to increase the overall underwater sound level  
38 by 3 dBA (FHWA, 1978), the small increase in vessels relative to the total using the  
39 Harbor (2,850 per year in Los Angeles Harbor) would not result in a measurable change  
40 in overall noise. Adding one vessel transit every 3 or 4 days or so will not adversely  
41 affect marine mammals in the Outer Harbor, Main Channel, and the West Basin because  
42 the transit distance would be short and infrequent, few individuals would be affected  
43 (large numbers are not present in the Harbor), sea lions would be expected to avoid sound  
44 levels that could cause damage to their hearing (as described in **Impact BIO-1a**), and  
45 overall underwater noise levels would not be measurably increased. Vessels approaching  
46 Angels Gate would pass through nearshore waters, and sound from their engines and

1 drive systems could disturb marine mammals that happen to be nearby. However, few  
2 individuals would be affected because the animals are generally sparsely distributed  
3 (i.e., have densities of less than five individuals per 100 square km [Forney et al., 1995]),  
4 the animals would likely move away from the sound as it increases in intensity from the  
5 approaching vessel, and exposure would be of short duration. Noise levels associated  
6 with vessel traffic, including near heavily used ferry terminals, generally range between  
7 130 and 136 dB (WSDOT, 2006), which are below the injury threshold of 180 dB<sub>rms</sub>.

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

10 The addition of 104 Alternative 5 vessel calls to the Port would have a low probability of  
11 harming endangered, threatened, or species of concern, such as marine mammals and sea  
12 turtles. Specifically, in regards to vessel collisions with whales in California coastal  
13 waters, the large amount of vessel traffic along the coast has resulted in few (fewer than  
14 three per year on average) reported whale strikes over the past 25 years. Vessel speed  
15 seems to influence whale/ship collision incidences, and such strikes, if any were to occur,  
16 would likely be fatal to the whales because unmitigated vessel speeds are generally above  
17 13 knots in the coastal shipping lanes. As discussed in Section 3.3.2.5, NOAA Fisheries  
18 recommends that speed restrictions in the range of 10 to 13 knots be used where  
19 appropriate, feasible, and effective, in areas where reduced speed is likely to reduce the  
20 risk of ship strikes and facilitate whale avoidance.

## 21 **CEQA Impact Determination**

22 Terminal activity under Alternative 5 would be greater than the CEQA baseline;  
23 however, operational activities would result in no loss of habitat for rare, threatened,  
24 endangered, protected, or candidate species, or Species of Special Concern. No  
25 impacts to critical habitat would occur because no critical habitat is present.

26 Increased ship call, however, may affect some species. Underwater sound from  
27 Alternative 5-related vessels would affect few, if any, marine mammals for the  
28 reasons described above; therefore, impacts would be less than significant under  
29 CEQA.

30 Container ships transiting the coastal waters of Southern California could potentially  
31 cause harm to endangered, threatened, or species of concern, such as marine  
32 mammals and sea turtles, from vessel collisions. Impacts of Alternative 5-related  
33 vessel traffic on marine mammals would be considered less than significant because  
34 of the low probability of vessel strikes, and Alternative 5 vessel strikes would not be  
35 expected to occur. As discussed above, fewer than three vessel strikes with whales  
36 are reported on average per year for the California coast. Very few ship strikes  
37 involving pinnipeds have been reported over the past 28 years by the Santa Barbara  
38 Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been reported  
39 in the area, although an olive ridley sea turtle stranded in Santa Barbara in 2003  
40 showed signs of blunt force trauma consistent with a vessel strike (Santa Barbara  
41 Marine Mammal Center, 1976–2004). No collisions have been reported between any  
42 oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002), although an  
43 oil supply vessel struck and presumably killed an adult male northern elephant seal in  
44 the Santa Barbara Channel in June 1999 (Minerals Management Service, 2001).

45 Although the likelihood of such a collision is very low, such collisions occur and may  
46 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
47 although considered less than significant because of the low probability of vessel

1 strikes, any increase in vessel traffic caused by the project may incrementally  
2 increase the potential for whale strikes.

### 3 *Mitigation Measures*

4 Although the likelihood of a collision between a vessel and marine mammals is very  
5 low, the following measure would further reduce potential impacts:

6 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
7 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
8 **between 40 nm from Point Fermin and the Precautionary Area in**  
9 **the following implementation schedule:**

10 ■ **100 percent starting 2009**

11 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
12 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
13 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
14 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
15 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
16 40-nm zone extends to the Channel Island area.

### 17 *Residual Impacts*

18 Residual impacts would be less than significant.

## 19 **NEPA Impact Determination**

20 Operation of facilities on the terminal backlands under Alternative 5 would be greater  
21 than under the NEPA baseline due to a larger backland area and higher throughput.  
22 Terminal activity under Alternative 5 would be greater than the NEPA baseline;  
23 however, operational activities would result in no loss of habitat for rare, threatened,  
24 endangered, protected, or candidate species, or Species of Special Concern. No  
25 impacts to critical habitat would occur because no critical habitat is present.

26 Increased ship calls, however, may affect some species. Underwater sound from  
27 Alternative 5-related vessels would affect few, if any, marine mammals for the  
28 reasons described above; therefore, impacts would be less than significant under  
29 NEPA.

30 Container ships transiting the coastal waters of Southern California could potentially  
31 cause harm to endangered, threatened, or species of concern, such as marine  
32 mammals and sea turtles, from vessel collisions. Impacts of Alternative 5-related  
33 vessel traffic on marine mammals would be considered less than significant because  
34 of the low probability of vessel strikes, and Alternative 5 vessel strikes would not be  
35 expected to occur. As discussed above, fewer than three vessel strikes with whales  
36 are reported on average per year for the California coast. Very few ship strikes  
37 involving pinnipeds have been reported over the past 28 years by the Santa Barbara  
38 Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been reported  
39 in the area, although an olive ridley sea turtle stranded in Santa Barbara in 2003  
40 showed signs of blunt force trauma consistent with a vessel strike (Santa Barbara  
41 Marine Mammal Center, 1976–2004). No collisions have been reported between any  
42 oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002), although an  
43 oil supply vessel struck and presumably killed an adult male northern elephant seal in  
44 the Santa Barbara Channel in June 1999 (Minerals Management Service, 2001).

1 Although the likelihood of such a collision is very low, such collisions occur and may  
2 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
3 although considered less than significant because of the low probability of vessel  
4 strikes, any increase in vessel traffic caused by the project may incrementally  
5 increase the potential for whale strikes.

#### 6 *Mitigation Measures*

7 Although the likelihood of a collision between a vessel and marine mammals is very  
8 low, the following measure would further reduce potential impacts:

9 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
10 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
11 **between 40 nm from Point Fermin and the Precautionary Area in**  
12 **the following implementation schedule:**

13 ■ **100 percent starting 2009**

14 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
15 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
16 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
17 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
18 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
19 40-nm zone extends to the Channel Island area.

#### 20 *Residual Impacts*

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

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

#### 27 **Essential Fish Habitat**

28 Operation of terminal facilities in the West Basin under Alternative 5 would have  
29 minimal effects on EFH. Although, Alternative 5 vessels would add to the number of  
30 noise events, the vessels would not substantially add to the overall underwater noise level.  
31 The addition of one vessel trip every 3 to 4 days on average would not adversely affect  
32 FMP species present in the Outer Harbor, Main Channel, or the West Basin because the  
33 additional trips proposed for the alternative are infrequent. Schooling fish, such as  
34 sardines and anchovy, likely would ignore the ship movements and sound, or temporarily  
35 move out of the way. Other FMP species are rare in the port, and vessel noise would not  
36 result in any but temporary effects on their distribution in the Port in spite of a projected  
37 additional 104 visits to the existing number of ships in the West Basin (332 ships in  
38 2001). In recent history, the Port has witnessed an improvement in fish abundance  
39 including EFH for FMP species (MEC, 2002), even though there has been increased  
40 vessel traffic in the Harbor. Therefore, it is unlikely that additional ship calls would  
41 affect FMP species, and additional ship calls would not adversely affect EFH for any  
42 species in the Harbor. Operation of Alternative 5 facilities on land would not affect EFH  
43 because none is present on land. Runoff from the new facilities would not substantially

1 reduce or alter EFH in Harbor waters because water quality standards for protection of  
2 marine life would not be exceeded (see Section 3.14).

### 3 **Natural Habitat or Plant Community**

4 As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
5 could be affected by operation of the terminal under Alternative 5. No wetlands or  
6 eelgrass are present in the Project area, and those in other areas of the Harbor are not  
7 located in or near (over 1 mile away) the channels used for vessel movement in the  
8 Harbor. No mudflats are present at the proposed Project site, and the small increase in  
9 vessel traffic would not affect the mudflats along the Main Channel. Thus, these habitats  
10 would not be affected by operational activities in the West Basin or vessel transit through  
11 the Harbor to the West Basin.

### 12 **CEQA Impact Determination**

13 Terminal activity under Alternative 5 would be greater than the CEQA baseline;  
14 however, operational activities on land and in the water under Alternative 5 would  
15 not substantially reduce or alter EFH for the reasons described above, resulting in  
16 less than significant impacts to EFH under CEQA. No SEAs, natural plant  
17 communities, wetlands, eelgrass, or mudflats are present, resulting in no impacts  
18 under CEQA.

#### 19 *Mitigation Measures*

20 No mitigation is required.

#### 21 *Residual Impacts*

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

### 24 **NEPA Impact Determination**

25 Under Alternative 5, operational activities in the water would not substantially reduce  
26 or alter EFH for the reasons described above, resulting in less than significant  
27 impacts to EFH under NEPA. Operational activities in the water would not affect  
28 SEAs, natural plant communities, wetlands, and eelgrass because none are present  
29 where in water activities would occur as well as no impacts to mudflats along the  
30 Main Channel because project-related vessel traffic would not affect them.

31 Alternative 5 upland operational activities would be less intensive than operational  
32 activities under the NEPA baseline, and there are no EFH or natural habitats on the  
33 Project site; consequently, backland operations would not result in significant  
34 impacts under NEPA.

#### 35 *Mitigation Measures*

36 No mitigation is required.

#### 37 *Residual Impacts*

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

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

3                   As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
4                   migration corridors are present in the Project area, either on land or in the water.  
5                   Migration by bird species that visit or pass through the terminal would not be affected by  
6                   the changes in terminal operations because the new structures would not impede their  
7                   movement. Operation of the backland facilities under Alternative 5, including the bridge  
8                   over the Southwest Slip, would not interfere with any terrestrial migration corridors  
9                   because none are present in those areas. Terminal-related vessel traffic to and from the  
10                  Harbor under Alternative 5 would not interfere with marine mammal migrations along  
11                  the coast because these vessels would represent a small proportion (3.6 percent) of the  
12                  total Port-related commercial traffic in the area, and each vessel would have a low  
13                  probability of encountering migrating marine mammals during transit through coastal  
14                  waters because these animals are generally sparsely distributed.

15                   **CEQA Impact Determination**

16                  Although terminal operations would extend over a larger area and be more intensive  
17                  than the CEQA baseline, no wildlife movement or migration corridors would be  
18                  affected by Alternative 5 during operations activities on land and in the water,  
19                  resulting in no impacts under CEQA.

20                  *Mitigation Measures*

21                  No mitigation is required.

22                  *Residual Impacts*

23                  No residual impacts would occur.

24                   **NEPA Impact Determination**

25                  Operation of terminal facilities under Alternative 5 would not affect any wildlife  
26                  movement or migration corridors in the water for the reasons described above;  
27                  therefore, no impacts would occur under NEPA. Operational activities on terminal  
28                  backlands under Alternative 5 would be only slightly more intensive than operational  
29                  activities under the NEPA baseline, and there are no migration corridors on the  
30                  Alternative 5 site; consequently, backland operations would not result in significant  
31                  impacts under NEPA.

32                  *Mitigation Measures*

33                  No mitigation is required.

34                  *Residual Impacts*

35                  No residual impacts would occur.

36                   **Impact BIO-4b: Operation of the new facilities could substantially**  
37                   **disrupt local biological communities.**

38                  Operational or permanent effects associated with Alternative 5 would be similar to those  
39                  described for the proposed Project in **Impact BIO-4b**, because Alternative 5 represents  
40                  one phase of the proposed Project. Vessel traffic to and from the terminal wharves would  
41                  have minimal direct effects on benthic communities in the West Basin as a result of

1 propeller wash (USACE and LAHD, 1992), and vessel traffic effects on water column  
2 species would be the similar to those of the proposed Project (see **Impact BIO-4b**).

3 However, as described for the proposed Project, if a vessel accident occurs and fuels spill  
4 into Harbor or ocean waters, the fuels could harm biological resources, depending on the  
5 extent of the spill. Such a vessel spill would be considered to be a significant impact due  
6 to the potential for harm to biological resources.

7 Similar to the proposed Project, accidental spills in upland areas are not expected to result  
8 in significant impacts to biological resources.

9 Runoff of pollutants to the Harbor from the new facilities on existing land would be the  
10 less than those described for the proposed Project in **Impact BIO-4b** because the  
11 terminal acreage would be smaller. Runoff of pollutants would have no adverse effects  
12 on water quality (Section 3.14) and, thus, would not adversely affect West Basin  
13 biological communities (fish, benthos, and plankton). Such runoff could occur during  
14 dry weather and from storm events. The latter is periodic, primarily during the winter  
15 rainy season, and generally of short duration.

16 Terminal lighting under Alternative 5 would be less than that of the proposed Project  
17 because the Alternative 5 terminal would be smaller. The amount of light at the terminal  
18 site would not substantially increase. Because the lighting would be in industrial areas,  
19 the light would not substantially affect terrestrial wildlife habitat or the species present.  
20 Most of the new lights would be located away from the edge of the water (throughout the  
21 backlands), and this would minimize effects on marine organisms so that biological  
22 communities would not be substantially disrupted.

### 23 **CEQA Impact Determination**

24 There is a remote potential for an accidental vessel spill to occur during Project  
25 operations, which could harm biological resources in the Harbor or ocean. Such a  
26 spill would be considered significant. Upland spills from terminal operations are not  
27 expected to result in significant impacts for the reasons discussed above.

28 Although terminal operations would extend over a larger area and be more intensive  
29 than the CEQA baseline, terminal operations under Alternative 5 would not  
30 substantially disrupt West Basin and Harbor biological communities through runoff  
31 of contaminants. Existing runoff and storm drain discharge controls as well as  
32 conditions of all terminal-specific permits would be implemented (see Section 3.14).  
33 The presence of new wharf structures, increased vessel traffic, or new lighting would  
34 not substantially disrupt West Basin and Harbor biological communities, for the  
35 reasons described above. Impacts, therefore, would be less than significant under  
36 CEQA.

### 37 *Mitigation Measures*

38 No mitigation, beyond implementation of measures required under existing  
39 regulations, is available to fully mitigate potential impacts related to potential  
40 accidental spills from container vessels during project operation.

### 41 *Residual Impacts*

42 Residual impacts related to potential vessel spills would be significant.

43 Residual impacts would be less than significant for other in-water operations for  
44 operation of land facilities.

## 1 NEPA Impact Determination

2 There is a remote potential for an accidental vessel spill to occur during Project  
3 operations, which could harm biological resources in the Harbor or ocean. Such a  
4 spill would be considered significant. Upland spills from terminal operations are not  
5 expected to result in significant impacts for the reason discussed above.

6 Under Alternative 5, the new wharf structures in the water column, shade from the  
7 new bridges, and increased vessel traffic would not substantially disrupt West Basin  
8 and Harbor biological communities for the reasons described above. Consequently,  
9 impacts to biological communities would be less than significant under NEPA.  
10 Because no biological communities that could be adversely affected are on the  
11 Project site, upland operations would result in less than significant impacts under  
12 NEPA.

### 13 *Mitigation Measures*

14 No mitigation, beyond implementation of measures required under existing  
15 regulations, is available to fully mitigate potential impacts related to potential  
16 accidental spills from container vessels during project operation.

### 17 *Residual Impacts*

18 Residual impacts related to potential vessel spills would be significant.

19 Residual impacts would be less than significant for other in-water operations for  
20 operation of land facilities.

## 21 **Impact BIO-4c: Operation of the new facilities in the West Basin has** 22 **a low potential to introduce non-native species into the Harbor that** 23 **could disrupt local biological communities.**

24 The amount of ballast water discharged into the West Basin and, thus, the potential for  
25 introduction of invasive exotic species (LAHD, 1999) from Alternative 5 operations  
26 would be less than those described for the proposed Project due to fewer ship calls.  
27 These vessels would come primarily from outside the EEZ and would be subject to  
28 regulations to minimize the introduction of non-native species in ballast water (see  
29 Section 3.3.3.8). Thus, ballast water discharges during cargo transfers in the Port would  
30 be unlikely to contain non-native species.

31 Non-native algal species can also be introduced via vessel hulls. As described for the  
32 proposed Project in **Impact BIO-4b**, the risk for introduction of these species is low.  
33 *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC  
34 and Associates, 2002), and *Sargassum filicinum* found in 2003 (MBC 2003), may be  
35 introduced and/or spread as a result of hull fouling or ballast water. Therefore, they have  
36 the potential to increase in the Harbor via vessels traveling between ports in the EEZ as  
37 described for the proposed Project. Invertebrates attached to vessel hulls could be  
38 introduced in a similar manner.

39 Terminal operations under Alternative 5 would result in a smaller increase  
40 (approximately 3.6 percent) in vessel traffic compared to the total number of vessels  
41 entering the Los Angeles Harbor for the proposed Project (approximately 8 percent).  
42 Considering this and the ballast water regulations currently in effect, the potential for  
43 introduction of additional exotic species via ballast water would be low from vessels  
44 entering from or going outside the EEZ. The potential for introduction of exotic species

1 via vessel hulls would be increased in proportion to the increase in number of vessels.  
2 However, vessel hulls are generally coated with antifouling paints and cleaned at  
3 intervals to reduce the frictional drag from growths of organisms on the hull (Global  
4 Security, 2007), which would reduce the potential for transport of exotic species. For  
5 these reasons, Alternative 5 has a low potential to increase the introduction of non-native  
6 species into the Harbor that could substantially disrupt local biological communities, but  
7 such effects could still occur.

### 8 **CEQA Impact Determination**

9 Alternative 5 would increase the annual ship calls relative to the CEQA baseline.  
10 Operation of the Alternative 5 facilities has the potential to result in the introduction  
11 of non-native species into the Harbor via ballast water or vessel hulls that could  
12 substantially disrupt local biological communities. Therefore, impacts would be  
13 significant under CEQA.

#### 14 *Mitigation Measures*

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

#### 19 *Residual Impacts*

20 Residual impacts would be significant.

### 21 **NEPA Impact Determination**

22 While unlikely, operation of the Alternative 5 facilities has the potential to result in  
23 the introduction of non-native species into the Harbor via ballast water or vessel hulls  
24 that could substantially disrupt local biological communities. Therefore, impacts  
25 would be significant under NEPA.

#### 26 *Mitigation Measures*

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

#### 31 *Residual Impacts*

32 Residual impacts would be significant.

### 33 **3.3.4.3.2.6 Alternative 6: Omni Cargo Terminal**

34 This alternative would construct an Omni cargo terminal at the Project site, which would  
35 entail physical land improvements and wharf construction as required for the proposed  
36 Project. Under this alternative, the entire Project site would be developed to meet the  
37 needs of an Omni terminal. Like the proposed Project, construction of this alternative  
38 would involve construction of 142 acres of Omni-terminal-specific backlands,  
39 2,500 linear feet of wharf, and 2.54 acres of fill into waters of the United States. The  
40 Catalina Express Terminal would be relocated under this alternative. Alternative 6 would  
41 accommodate a total of 506,467 TEUs annually, handle 17,987 autos (annual TEUs),

1 manage 5,159, 570 tons of annual break-bulk commodities, and require 364 annual  
2 ship calls.

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

7 Anticipated impacts to threatened or endangered species or their habitat from dredging,  
8 dike placement, fill, pile installation, and wharf improvements would be the same as for  
9 the proposed Project (the in-water activities would be the same) and would be unlikely to  
10 affect such resources through temporary increases in noise, vibration, and turbidity as  
11 well as the potential for displacement of individuals from the work area as described in  
12 **Impact BIO-1a** for the proposed Project. No critical habitat for any federally listed  
13 species is present in the Alternative 6 area. Foraging by the California least tern,  
14 California brown pelican, or any other special-status species in Table 3.3-1 could  
15 continue during construction with no adverse effects to the species. Individuals using the  
16 West Basin could use other areas in the Harbor if they choose to avoid the immediate  
17 construction work area. No individuals would be lost, and their populations would not be  
18 adversely affected by construction activities.

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

22 Transport of rock for the wharf work at Berth 100 and its south extension under  
23 Alternative 6 would be the same as for the proposed Project. Thus, the potential for  
24 effects on marine mammals would be similar to the proposed Project.

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

27 **CEQA Impact Determination**

28 Although Alternative 6 construction would extend beyond the CEQA baseline area,  
29 construction activities on land and in the water under Alternative 6 would not result  
30 in loss of individuals or habitat for rare, threatened, endangered, protected, or  
31 candidate species, or Species of Special Concern. Furthermore, sound pressure waves  
32 from construction activities in the water would not injure marine mammals.  
33 Therefore, impacts would be less than significant under CEQA. No critical habitat  
34 for federally listed species is present, and no impacts would occur.

35 *Mitigation Measures*

36 No mitigation is required.

37 *Residual Impacts*

38 Residual impacts would be less than significant.

39 **NEPA Impact Determination**

40 As described above, in-water construction activities under Alternative 6 would not  
41 result in loss of individuals or habitat for rare, threatened, endangered, protected, or  
42 candidate species, or Species of Special Concern, and sound pressure waves from

1 construction activities in the water would not injure marine mammals; therefore,  
2 impacts would be less than significant under NEPA. Although backland under  
3 Alternative 6 would be larger than under the NEPA baseline (by 25 acres), no rare,  
4 threatened, endangered, protected, or candidate species, or Species of Special  
5 Concern or their habitat are present on the Project site, and construction activities on  
6 the backlands would therefore not result in significant impacts under NEPA.

#### 7 *Mitigation Measures*

8 No mitigation is required.

#### 9 *Residual Impacts*

10 Residual impacts would be less than significant.

### 11 **Impact BIO-2a: Construction activities would not result in a** 12 **substantial reduction or alteration of a state-, federally, or locally** 13 **designated natural habitat, special aquatic site, or plant community,** 14 **including wetlands.**

#### 15 **Essential Fish Habitat**

16 Alternative 6 would have no effect on the FMP species because none occur in the West  
17 Basin. It would have minimal effects on those that are rare or uncommon, such as Pacific  
18 mackerel and English sole (MEC and Associates, 2002) because few, if any, individuals  
19 would be in the disturbance area. Effects of dredging, dike and fill placement, pile  
20 installations, and wharf construction at Berth 100 (including the south extension) and  
21 Berth 102 on FMP species would be the same as described for the proposed Project. The  
22 loss of water column habitat due to placement of fill (approximately 2.54 acres, including  
23 pile installation required for the relocation of the Catalina Express terminal docks) would  
24 result in a loss of habitat and food sources for the FMP species that use the southern West  
25 Basin. The loss of habitat would not likely have a measurable effect on sustainable  
26 fisheries because it would not measurably reduce the stocks of these species in the areas  
27 where they are harvested (primarily offshore in the open ocean). Loss of habitat for  
28 pelagic fish species that might use the West Basin, particularly northern anchovy, is  
29 considered a substantial effect that would be mitigated in accordance with established  
30 mitigation requirements as described in **Impact BIO-5**.

31 Construction activities on upland areas under Alternative 6 (including the bridges across  
32 the Southwest Slip) would have no direct effects on EFH. Runoff of sediments and  
33 contaminants from such construction, however, could enter Harbor waters. As discussed  
34 in Section 3.14, implementation of sediment control measures (e.g., sediment barriers and  
35 sedimentation basins) and BMPs would minimize the impacts of such runoff.

#### 36 **Natural Habitat or Plant Community**

37 No kelp or eelgrass beds are present in the Alternative 6 area, and those in other parts of  
38 the Harbor would not be affected by construction activities in the Berth 97-109 area due  
39 to their distance from the work area. No designated SEAs, including the least tern  
40 nesting site on Pier 400, would be affected by this alternative because no construction  
41 would take place at or near this SEA. As described for the proposed Project, no wetlands  
42 or mudflats are present in the Alternative 6 Project area, and those in other areas of the  
43 Harbor would not be affected by construction activities in the West Basin due to distance  
44 from the Alternative 6 site (more than 3 miles).

## CEQA Impact Determination

Dike and fill placement in the southern West Basin under Alternative 6 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 to, but no substantial alteration of, habitat for FMP species, which would be less than significant (similar to the proposed Project). Although upland areas would be greater than those of the CEQA baseline, construction activities on the backlands, including the bridges over the Southwest Slip, 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 3.14 (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*

**MM BIO-1** would apply to this EFH impact. Mitigation for the filling of approximately 2.54 acres of Inner Harbor marine habitat would require credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This MM would fully offset Alternative 6 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 Alternative 6, leaving no residual impact. No residual impacts would occur for natural habitats, special aquatic sites, or plant communities.

## NEPA Impact Determination

Dike and fill placement in the southern West Basin under Alternative 6 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., dredging and wharf construction). Runoff of sediments from the Project backlands during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.14 (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. Although backland construction activities under Alternative 6 would occur on a larger area than the NEPA baseline (142 acres vs. 117 acres), construction BMPs would minimize impacts; consequently, backland construction would not result in significant impacts under NEPA.

### *Mitigation Measures*

**MM BIO-1** would apply to this impact. Mitigation of the filling of approximately 2.54 acres of Inner Harbor marine habitat would require credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This mitigation

1 measure would fully offset Alternative 6 impacts to EFH sustainable fisheries and  
2 loss of general marine habitat (see **Impact BIO-5** below).

### 3 *Residual Impacts*

4 The mitigation credits would compensate for the loss of EFH as a result of  
5 Alternative 6, leaving no residual impact.

### 6 **Impact BIO-3a: Construction activities would not interfere with** 7 **wildlife movement/migration corridors.**

8 Similar to the proposed Project in **Impact BIO-3a**, Alternative 6 construction activities  
9 on land and in the water would not affect wildlife movement/migration corridors.

### 10 **CEQA Impact Determination**

11 Although construction would extend beyond the CEQA baseline, no wildlife  
12 movement or migration corridors would be affected by Alternative 6 construction  
13 activities on land and in the water, resulting in no impacts under CEQA.

### 14 *Mitigation Measures*

15 No mitigation is required.

### 16 *Residual Impacts*

17 No residual impacts would occur.

### 18 **NEPA Impact Determination**

19 Dredging, dike and fill placement, pile installation, and general wharf construction in  
20 the water as well as upland terminal construction activities on the Project site would  
21 not affect any wildlife movement or migration corridors as described above; therefore,  
22 no impacts would occur under NEPA. Although backland construction activities on  
23 the Project site would occur on a larger area than would occur under the NEPA  
24 baseline (by 25 acres), no wildlife movement or migration corridors exist on the  
25 Project site; consequently, backland construction would not result in significant  
26 impacts under NEPA.

### 27 *Mitigation Measures*

28 No mitigation is required.

### 29 *Residual Impacts*

30 No residual impacts would occur.

### 31 **Impact BIO-4a: Dredging and wharf construction activities would not** 32 **substantially disrupt local biological communities.**

### 33 **Dredging**

34 Dredging, dike and fill placement, and pile installation required for the new wharves at  
35 Berth 100 (constructed in Phase I) disturbed and removed approximately 1.3 acres of  
36 soft-bottom habitat in a linear strip near Berth 100 (Table 3.3-3). In Phase II, no  
37 dredging would occur, but pile placement would (approximately 0.04 acres in total cross-  
38 sectional area). In Phase III, approximately 1.2 acres of soft-bottom habitat would be

1 disturbed and removed as a result of dike and fill placement for the Berth 100 southern  
2 extension. Benthic invertebrates (approximately 0.1 metric ton) living in and on the  
3 sediments to be dredged or filled adjacent to the berths would be lost from being dredged  
4 and/or covered with dike and fill, but the newly exposed dike riprap would provide new  
5 habitat that would be colonized by a diverse assemblage of marine organisms at a higher  
6 biomass (41 to over 3,000 g/m<sup>2</sup>) (LAHD, 1981; MEC and Associates, 2002) than that  
7 found in the soft-bottom sediments (21 g/m<sup>2</sup>) (MEC and Associates, 2002), based on  
8 observed biomass of organisms in/on those habitats. Although a small proportion of the  
9 soft bottom in the West Basin would be affected by the dredging, fill, and pile placement  
10 (including the relocation of the Catalina Express terminal docks), the loss of benthic  
11 communities in the West Basin or the Harbor would be considered a significant impact  
12 under Alternative 6.

13 Effects of turbidity and resuspension of sediments containing contaminants on planktonic  
14 organisms would be limited to the immediate vicinity of the dredging and would be the  
15 same as for the proposed Project.

16 Removal of sediments containing accumulated contaminants through dredging for the  
17 wharf work at Berth 100 (including the south extension) would provide the same benefit  
18 to the benthic community in the West Basin and the Harbor as the proposed Project.  
19 Temporary disturbances to fish and marine mammals caused by dredging and wharf  
20 construction activities for Alternative 6 would be the same as for the proposed Project.

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

## 32 **Wharf and Backland Construction**

33 For Alternative 6, as for the proposed Project, construction of a new 2,500-foot wharf at  
34 Berths 100-102 would add new rock dike and pile hard substrate habitat. The placement  
35 of dike, fill, and piles would result in the loss of approximately 0.2 metric ton of benthic  
36 invertebrates, including the 0.1 metric ton lost from dredging. Marginal aquatic habitat  
37 benefit would accrue from the small amount of new hard substrate created under  
38 Alternative 6.

39 As with the proposed Project, the construction of wharf and container terminal facilities  
40 on newly created fill (by the Channel Deepening Project) under Alternative 6, as well as  
41 construction on previously developed areas, could affect biological resources through  
42 (1) noise and vibration and (2) runoff of pollutants. Turbidity, noise, and vibration  
43 (primarily from pile driving) would likely cause most fish and birds to temporarily avoid  
44 the immediate construction area. Fish and bird populations would not be adversely  
45 affected because the small number of individuals moving into other areas of the West  
46 Basin, the short duration of the disturbance, and the small area affected would not  
47 substantially disrupt West Basin biological communities. Backland construction

1 activities would have minimal effect on terrestrial biota because the species present are  
2 non-native and/or adapted to use of developed sites. Disturbances to marine species  
3 would be temporary, and the animals present could move to other nearby areas for the  
4 duration of the disturbance. Consequently, biological communities in this industrial area  
5 would not be substantially disrupted.

6 Runoff of pollutants from Alternative 6 backland construction activities would be  
7 minimized through use of BMPs (see Section 3.14), and the low concentrations that could  
8 enter Harbor waters would not adversely affect marine organisms.

## 9 **Accidents**

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

14 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
15 dredging and disposal of the material are unlikely to occur during Alternative 6  
16 construction (see Section 3.14 **Impact WQ-1d**) and would not adversely affect aquatic  
17 biota to the degree that West Basin biological communities are substantially disrupted.  
18 Any such spills would be small and cleaned up immediately, resulting in loss of few  
19 marine organisms and causing no adverse community effects. A larger spill that could  
20 have locally substantial effects on biological resources is not expected to occur, even  
21 under reasonable worst-case conditions (see Section 3.8, Hazards and Hazardous  
22 Materials). Accidental spills of pollutants during construction on land would be small  
23 because large quantities of such substances would not be used during construction. These  
24 spills would be contained and cleaned up with no runoff to Harbor waters (see  
25 Section 3.14).

## 26 **CEQA Impact Determination**

27 Construction of the backlands under Alternative 6 would be extended beyond the  
28 CEQA baseline area but would result in no substantial disruption of local biological  
29 communities for the reasons described above; therefore, impacts would be less than  
30 significant. However, the loss of approximately 2.54 acres of soft-bottom-habitat in  
31 the West Basin and in the vicinity of Berth 95 (for the relocation of the Catalina  
32 Express terminal docks) would represent a significant impact to the benthic  
33 community. Runoff of pollutants from backland construction activities would not  
34 substantially disrupt biological communities in the West Basin and would have only  
35 localized, short-term, less than significant impacts on marine organisms in the  
36 immediate vicinity of drain outlets due to implementation of runoff control measures  
37 that are part of Alternative 6 (e.g., Project-specific SWPPP and BMPs such as  
38 sediment barriers and sedimentation basins; see Section 3.14.4.3 for a list of  
39 measures). Accidental spills from equipment during dredging would not  
40 substantially disrupt local biological communities because they would be small,  
41 contained, cleaned up immediately, and affect only a few common marine organisms,  
42 and thus would have localized, less than significant impacts. Accidental spills during  
43 construction on land would not reach Harbor waters due to the implementation of  
44 BMPs, and thus would have no impacts on marine communities. No notice to  
45 proceed will be issued without approval of the specific SWPPP and BMPs.

1 *Mitigation Measures*

2 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
3 detailed description of this measure).

4 *Residual Impacts*

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

7 **NEPA Impact Determination**

8 In-water construction in the West Basin and Berth 95 vicinity under Alternative 6  
9 would result in a loss of benthic communities, as described above, and impacts,  
10 therefore, would be significant. Although backland construction at the Project site  
11 under Alternative 6 would occur on a larger area than would occur under the NEPA  
12 baseline (by 25 acres), no local biological communities exist on the Project site that  
13 could be adversely affected; consequently, backland construction would not result in  
14 significant biological resource impacts under NEPA.

15 *Mitigation Measures*

16 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
17 detailed description of this measure).

18 *Residual Impacts*

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

21 **Impact BIO-5: Alternative 6 would result in a permanent loss of**  
22 **marine habitat.**

23 Dike, fill, and pile placement and fill in the West Basin occurred in Phase I (as applied to  
24 Alternative 6) and would occur for subsequent construction of wharves at Berths 100  
25 (south) and Berth 102. In addition, up to 15 piles would be added to the Berth 95 vicinity  
26 for the relocation of the Catalina Express terminal docks. Placement of dike, fill, and  
27 piles would cause a loss of aquatic habitat, including water column and soft bottom. The  
28 beneficial uses associated with that habitat would also be lost. The dike and fill  
29 placement in the water adjacent to the berths would result in a net loss of approximately  
30 2.54 acres.

31 **CEQA Impact Determination**

32 Alternative 6 construction would occur beyond the CEQA baseline area into the West  
33 Basin. The placement of dike, fill, and piles in the vicinity of Berth 100 and  
34 Berth 102 and pile placement in the vicinity of Berth 95 for the relocation of the  
35 Catalina Express terminal docks under Alternative 6 would cause a permanent loss of  
36 2.54 acres of aquatic habitat in the Los Angeles Inner Harbor (southern West Basin),  
37 as described above. This impact is considered significant under CEQA.

38 *Mitigation Measures*

39 **MM BIO-1** would apply for marine habitat impacts (see Impact Bio-5 for detailed  
40 description of this measure).

1 *Residual Impacts*

2 The mitigation credits would compensate for the loss of marine habitat as a result of  
3 Alternative 6, leaving no residual impact.

4 **NEPA Impact Determination**

5 Alternative 6 development would include in-water construction that is not included in  
6 the NEPA baseline. Under Alternative 6, construction of a dike, fill, and piles in the  
7 West Basin and Berth 95 vicinity would cause a permanent loss of 2.54 acres of  
8 aquatic habitat in the Los Angeles Inner Harbor, as described above. This impact is  
9 considered significant under NEPA.

10 *Mitigation Measures*

11 **MM BIO-1**, as described under the proposed Project, would be implemented, which  
12 would fully mitigate the impact.

13 *Residual Impacts*

14 The mitigation credits would compensate for the loss of marine habitat as a result of  
15 Alternative 6, leaving no residual impact.

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

20 As with the proposed Project, operation of new container terminal facilities in the West  
21 Basin under Alternative 6 would not adversely affect any of the state- or federally listed,  
22 or special concern bird species listed in Table 3.3-1. Those species that currently use the  
23 West Basin area for foraging or resting could continue to do so because Alternative 6  
24 would not appreciably change the industrial activities in the West Basin or cause a loss of  
25 habitat for those species. Operation of the backland facilities (e.g., cranes and container  
26 handling/transfers) would not measurably change the numbers or species of common  
27 birds in that area and, thus, would not affect peregrine falcon foraging. Perching  
28 locations for birds such as the California brown pelican would still be available. The  
29 increase in vessel traffic of one vessel every day on average would cause a short interval  
30 of disturbance throughout the route from Angels Gate to Berths 97-109 in the West Basin,  
31 but would not result in a loss of habitat or individuals for sensitive birds that use the  
32 water surface for resting or foraging.

33 An estimated 364 additional vessel calls per year above the CEQA and NEPA baseline  
34 ship calls of zero to the Port would result from Alternative 6. Underwater sound from  
35 these vessels or tug boats used to maneuver them to the berth would add to the existing  
36 vessel traffic noise in the Harbor. Because a doubling in the number of vessels (noise  
37 sources) in the Harbor would be necessary to increase the overall underwater sound level  
38 by 3 dBA (FHWA, 1978), the small increase in vessels relative to the total using the  
39 Harbor (2,850 in 2004) would not result in a measurable change in overall noise. Adding  
40 one vessel transit every day on average will not adversely affect marine mammals in the  
41 Outer Harbor, Main Channel, and the West Basin because the transit distance would be  
42 short and infrequent, few individuals would be affected (large numbers are not present in  
43 the Harbor), sea lions would be expected to avoid sound levels that could cause damage  
44 to their hearing (as described in **Impact BIO-1a**), and overall underwater noise levels

1 would not be measurably increased. Vessels approaching Angels Gate would pass  
2 through nearshore waters, and sound from their engines and drive systems could disturb  
3 marine mammals that happen to be nearby. However, few individuals would be affected  
4 because the animals are generally sparsely distributed (i.e., have densities of less than  
5 five individuals per 100 square km [Forney et al., 1995]), the animals would likely move  
6 away from the sound as it increases in intensity from the approaching vessel, and  
7 exposure would be of short duration. Noise levels associated with vessel traffic,  
8 including near heavily used ferry terminals, generally range between 130 and 136 dB  
9 (WSDOT, 2006), which are below the injury threshold of 180 dB<sub>rms</sub>.

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

12 The addition of 364 Alternative 6 vessel calls to the Port would have a low probability of  
13 harming endangered, threatened, or species of concern, such as marine mammals and sea  
14 turtles. Specifically, in regard to vessel collisions with whales in California coastal  
15 waters, the large amount of vessel traffic along the coast has resulted in few (fewer than  
16 three per year on average) reported whale strikes over the past 25 years. Vessel speed  
17 seems to influence whale/ship collision incidences, and most strikes, if any were to occur,  
18 would likely be fatal to the whales because unmitigated vessel speeds are generally above  
19 13 knots in the coastal shipping lanes. As discussed in Section 3.3.2.5, NOAA Fisheries  
20 recommends that speed restrictions in the range of 10 to 13 knots be used where  
21 appropriate, feasible, and effective, in areas where reduced speed is likely to reduce the  
22 risk of ship strikes and facilitate whale avoidance.

### 23 **CEQA Impact Determination**

24 Terminal activity under Alternative 6 would be greater than the CEQA baseline;  
25 however, operational activities would result in no loss of habitat for rare, threatened,  
26 endangered, protected, or candidate species, or Species of Special Concern. No  
27 impacts to critical habitat would occur because no critical habitat is present.

28 Increased ship calls, however, may affect some species. Underwater sound from  
29 Alternative 6-related vessels would affect few, if any, marine mammals for the  
30 reasons described above; impacts, therefore, would be less than significant under  
31 CEQA.

32 Container ships transiting the coastal waters of Southern California could potentially  
33 cause harm to endangered, threatened, or species of concern, such as marine  
34 mammals and sea turtles, from vessel collisions. Impacts of Alternative 6-related  
35 vessel traffic on marine mammals would be considered less than significant because  
36 of the low probability of vessel strikes, and vessel strikes under Alternative 6 would  
37 not be expected to occur. As discussed above, fewer than three vessel strikes with  
38 whales are reported on average per year for the California coast. Very few ship  
39 strikes involving pinnipeds have been reported over the past 28 years by the Santa  
40 Barbara Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been  
41 reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
42 2003 showed signs of blunt force trauma consistent with a vessel strike (Santa  
43 Barbara Marine Mammal Center, 1976–2004). No collisions have been reported  
44 between any oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002),  
45 although an oil supply vessel struck and presumably killed an adult male northern  
46 elephant seal in the Santa Barbara Channel in June 1999 (Minerals Management  
47 Service, 2001).

1 Although the likelihood of such a collision is very low, such collisions occur and may  
2 cause an impact to species listed on the ESA, especially blue whales. Therefore,  
3 although considered less than significant because of the low probability of vessel  
4 strikes, any increase in vessel traffic caused by the project may incrementally  
5 increase the potential for whale strikes.

#### 6 *Mitigation Measures*

7 Although the likelihood of a collision between a vessel and marine mammals is very  
8 low, the following measure would further reduce potential impacts:

9 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
10 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
11 **between 40 nm from Point Fermin and the Precautionary Area in**  
12 **the following implementation schedule:**

13 ■ **100 percent starting 2009**

14 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
15 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
16 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
17 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
18 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
19 40-nm zone extends to the Channel Island area.

#### 20 *Residual Impacts*

21 Residual impacts would be less than significant.

#### 22 **NEPA Impact Determination**

23 Operation of facilities on the terminal backlands under Alternative 6 would be greater  
24 than under the NEPA baseline due to a larger backland area and higher throughput.  
25 Terminal activity under Alternative 6 would be greater than the NEPA baseline;  
26 however, operational activities would result in no loss of habitat for rare, threatened,  
27 endangered, protected, or candidate species, or Species of Special Concern. No  
28 impacts to critical habitat would occur because no critical habitat is present.

29 Increased ship calls, however, may affect some species. Underwater sound from  
30 Alternative 6-related vessels would affect few, if any, marine mammals for the  
31 reasons described above; therefore, impacts would be less than significant under  
32 NEPA.

33 Container ships transiting the coastal waters of Southern California could potentially  
34 cause harm to endangered, threatened, or species of concern, such as marine  
35 mammals and sea turtles, from vessel collisions. Impacts of Alternative 6-related  
36 vessel traffic on marine mammals would be considered less than significant because  
37 of the low probability of vessel strikes, and vessel strikes under Alternative 6 would  
38 not be expected to occur. As discussed above, fewer than three vessel strikes with  
39 whales are reported on average per year for the California coast. Very few ship  
40 strikes involving pinnipeds have been reported over the past 28 years by the Santa  
41 Barbara Marine Mammal Center (1976–2004). No sea turtle-ship strikes have been  
42 reported in the area, although an olive ridley sea turtle stranded in Santa Barbara in  
43 2003 showed signs of blunt force trauma consistent with a vessel strike (Santa  
44 Barbara Marine Mammal Center, 1976–2004). No collisions have been reported  
45 between any oil tankers and any cetaceans or sea turtles in the region (Cordaro, 2002),

1 although an oil supply vessel struck and presumably killed an adult male northern  
2 elephant seal in the Santa Barbara Channel in June 1999 (Minerals Management  
3 Service, 2001).

4 Although the likelihood of such a collision is very low, it does occur and may cause  
5 an impact to species listed on the ESA, especially blue whales. Therefore, although  
6 considered less than significant because of the low probability of vessel strikes, any  
7 increase in vessel traffic caused by the project may incrementally increase the  
8 potential for whale strikes.

### 9 *Mitigation Measures*

10 Although the likelihood of a collision between a vessel and marine mammals is very  
11 low, the following measure would further reduce potential impacts:

12 **MM BIO-2: Vessel Speed Reduction Program. All ships calling at**  
13 **Berths 97-109 shall comply with the expanded VSRP of 12 knots**  
14 **between 40 nm from Point Fermin and the Precautionary Area in**  
15 **the following implementation schedule:**

16 ■ **100 percent starting 2009**

17 The average cruise speed for a container ship ranges from about 18 to 25 knots,  
18 depending on the size of a ship (larger ships generally cruise at higher speeds). As  
19 discussed previously, NOAA Fisheries recommends that speed restrictions in the  
20 range of 10 to 13 knots be used. Slowing this speed to 12 knots within 40 nm of the  
21 Port would reduce the likelihood of collisions consistent with NOAA guidance. The  
22 40-nm zone extends to the Channel Island area.

### 23 *Residual Impacts*

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

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

### 30 **Essential Fish Habitat**

31 Operation of terminal facilities in the West Basin under Alternative 6 would have  
32 minimal effects on EFH. Although, Alternative 6 vessels would add to the number of  
33 noise events, the vessels would not substantially add to the overall underwater noise level.  
34 The addition of one vessel trip every day on average would not adversely affect FMP  
35 species present in the Outer Harbor, Main Channel, or the West Basin because the  
36 additional trips proposed for the alternative are infrequent. Schooling fish, such as  
37 sardines and anchovy, likely would ignore the ship movements and sound, or temporarily  
38 move out of the way. Other FMP species are rare in the port, and vessel noise would not  
39 result in any but temporary effects on their distribution in the port despite a projected  
40 additional 364 visits to the existing number of ships in the West Basin (332 ships in  
41 2001). In recent history, the Port has witnessed an improvement in fish abundance  
42 including EFH for FMP species (MEC, 2002), even though there has been increased  
43 vessel traffic in the Harbor. Therefore, it is unlikely that additional ship calls would  
44 affect FMP species, and the additional ship calls would not adversely affect EFH for any

1 species in the Harbor. Operation of Alternative 6 facilities on land would not affect EFH  
2 because none is present on land. Runoff from the new facilities would not substantially  
3 reduce or alter EFH in Harbor waters because water quality standards for protection of  
4 marine life would not be exceeded (see Section 3.14).

### 5 **Natural Habitat or Plant Community**

6 As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
7 could be affected by operation of the terminal under Alternative 6. No wetlands or  
8 eelgrass are present in the Project area, and those in other areas of the Harbor are not  
9 located in or near (over 1 mile away) the channels used for vessel movement in the  
10 Harbor. No mudflats are present at the proposed Project site, and the small increase in  
11 vessel traffic would not affect the mudflats along the Main Channel. Thus, these habitats  
12 would not be affected by operational activities in the West Basin or vessel transit through  
13 the Harbor to the West Basin.

### 14 **CEQA Impact Determination**

15 Terminal activity under Alternative 6 would be greater than the CEQA baseline;  
16 however, operational activities on land and in the water under Alternative 6 would  
17 not substantially reduce or alter EFH for the reasons described above, resulting in  
18 less than significant impacts to EFH under CEQA. No SEAs, natural plant  
19 communities, wetlands, or eelgrass are present, and the mudflats along the Main  
20 Channel would not be affected by project-related vessel traffic, resulting in no  
21 impacts under CEQA.

#### 22 *Mitigation Measures*

23 No mitigation is required.

#### 24 *Residual Impacts*

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

### 27 **NEPA Impact Determination**

28 Under Alternative 6, operational activities in the water would not substantially reduce  
29 or alter EFH for the reasons described above, resulting in less than significant  
30 impacts to EFH under NEPA. Operational activities in the water would not affect  
31 SEAs, natural plant communities, wetlands, and eelgrass because none are present  
32 where in-water activities would occur, as well as no impacts to mudflats along the  
33 Main Channel because project-related vessel traffic would not affect them.  
34 Alternative 6 upland operations would be more intensive than operational activities  
35 under the NEPA baseline, but there are no EFH or natural habitats on the Project site;  
36 consequently, backland operations would not result in significant impacts under  
37 NEPA.

#### 38 *Mitigation Measures*

39 No mitigation is required.

#### 40 *Residual Impacts*

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

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

3                   As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
4                   migration corridors are present in the Project area, either on land or in the water.  
5                   Migration by bird species that visit or pass through the terminal would not be affected by  
6                   the changes in terminal operations because the new structures would not impede their  
7                   movement. Operation of the backland facilities under Alternative 6, including the  
8                   bridges over the Southwest Slip, would not interfere with any terrestrial migration  
9                   corridors because none are present in those areas. Terminal-related vessel traffic to and  
10                  from the Harbor under Alternative 6 would not interfere with marine mammal migrations  
11                  along the coast because these vessels would represent a relatively small proportion  
12                  (12.7 percent) of the total Port-related commercial traffic in the area, and each vessel  
13                  would have a low probability of encountering migrating marine mammals during transit  
14                  through coastal waters because these animals are generally sparsely distributed.

15                   **CEQA Impact Determination**

16                  Although terminal operations would extend over a larger area and be more intensive  
17                  than the CEQA baseline, no wildlife movement or migration corridors would be  
18                  affected by Alternative 6 during operations activities on land and in the water,  
19                  resulting in no impacts under CEQA.

20                  *Mitigation Measures*

21                  No mitigation is required.

22                  *Residual Impacts*

23                  No residual impacts would occur.

24                   **NEPA Impact Determination**

25                  Operation of terminal facilities under Alternative 6 would not affect any wildlife  
26                  movement or migration corridors in the water for the reasons described above;  
27                  therefore, no impacts would occur under NEPA. Operational activities on terminal  
28                  backlands under Alternative 6 would be more intensive than operational activities  
29                  under the NEPA baseline, but there are no migration corridors on the Project site;  
30                  consequently, backland operations would not result in significant impacts under  
31                  NEPA.

32                  *Mitigation Measures*

33                  No mitigation is required.

34                  *Residual Impacts*

35                  No residual impacts would occur.

36                   **Impact BIO-4b: Operation of the new facilities could substantially**  
37                   **disrupt local biological communities.**

38                  Operational or permanent effects associated with Alternative 6 would be similar to those  
39                  described for the proposed Project in **Impact BIO-4b** because the amount of new hard  
40                  substrate (dike placement and pile installation) under this alternative, the terminal acreage,  
41                  and the two bridges over the Southwest Slip would be the same as for the proposed

1 Project. Vessel traffic to and from the terminal wharves would have minimal direct  
2 effects on benthic communities in the West Basin as a result of propeller wash (USACE  
3 and LAHD, 1992), and vessel traffic effects on water column species would be the  
4 similar to those of the proposed Project (see **Impact BIO-4b**).

5 However, as described for the proposed Project, if a vessel accident occurs and fuels spill  
6 into Harbor or ocean waters, the fuel could harm biological resources, depending on the  
7 extent of the spill. Such a vessel spill would be considered to be a significant impact due  
8 to the potential for harm to biological resources.

9 Similar to the proposed Project, accidental spills in upland areas are not expected to result  
10 in significant impacts to biological resources.

11 Runoff of pollutants to the Harbor from the new facilities on existing land would be  
12 similar to those described for the proposed Project in **Impact BIO-4b** because the  
13 terminal acreage would be the same. Runoff of pollutants would have no adverse effects  
14 on water quality (Section 3.14) and, thus, would not adversely affect West Basin  
15 biological communities (fish, benthos, and plankton). Such runoff could occur during  
16 dry weather and from storm events. The latter is periodic, primarily during the winter  
17 rainy season, and generally of short duration.

18 Terminal lighting under Alternative 6 would be similar to that of the proposed Project  
19 because the terminals would have the same acreage. The amount of light at the terminal  
20 site would not substantially increase. Because the lighting would be in industrial areas,  
21 the light would not substantially affect terrestrial wildlife habitat or the species present.  
22 Most of the new lights would be located away from the edge of the water (throughout the  
23 backlands), and this would minimize effects on marine organisms so that biological  
24 communities would not be substantially disrupted.

## 25 **CEQA Impact Determination**

26 There is a remote potential for an accidental vessel spill to occur during Project  
27 operation, which could harm biological resources in the Harbor or ocean. Such a  
28 spill would be considered significant. Upland spills from terminal operations are not  
29 expected to result in significant impacts for the reason discussed above.

30 Although terminal operations would extend over a larger area and be more intensive  
31 than the CEQA baseline, terminal operations under Alternative 6 would not  
32 substantially disrupt West Basin and Harbor biological communities through runoff  
33 of contaminants. Existing runoff and storm drain discharge controls as well as  
34 conditions of all terminal-specific permits would be implemented (see  
35 Section 3.14). The presence of new wharf structures, increased vessel traffic, or new  
36 lighting would not substantially disrupt West Basin and Harbor biological  
37 communities, for the reasons described above. Impacts, therefore, would be less  
38 than significant under CEQA.

### 39 *Mitigation Measures*

40 No mitigation, beyond implementation of measures required under existing  
41 regulations, is available to fully mitigate potential impacts related to potential  
42 accidental spills from container vessels during project operation.

### 43 *Residual Impacts*

44 Residual impacts related to potential vessel spills would be significant.

1 Residual impacts would be less than significant for other in-water operations for  
2 operation of land facilities.

### 3 **NEPA Impact Determination**

4 There is a remote potential for an accidental vessel spill to occur during Project  
5 operation, which could harm biological resources in the Harbor or ocean. Such a  
6 spill would be considered significant. Upland spills from terminal operations are not  
7 expected to result in significant impacts for the reason discussed above.

8 Under Alternative 6, the new wharf structures in the water column, shade from the  
9 new bridges, and increased vessel traffic would not substantially disrupt West Basin  
10 and Harbor biological communities for the reasons described above. Consequently,  
11 impacts to biological communities would be less than significant under NEPA.

12 Although backland operation of facilities on the Project site would be more intensive  
13 than the NEPA baseline due to higher backland acreage (by 25 acres) and increased  
14 throughout, there are no biological communities on the Project site that could be  
15 adversely affected, and therefore, upland operations would not result in significant  
16 impacts under NEPA.

#### 17 *Mitigation Measures*

18 No mitigation, beyond implementation of measures required under existing  
19 regulations, is available to fully mitigate potential impacts related to potential  
20 accidental spills from container vessels during project operation.

#### 21 *Residual Impacts*

22 Residual impacts related to potential vessel spills would be significant.

23 Residual impacts would be less than significant for other in-water operations for  
24 operation of land facilities.

### 25 **Impact BIO-4c: Operation of the new facilities in the West Basin has** 26 **a low potential to introduce non-native species into the Harbor that** 27 **could substantially disrupt local biological communities.**

28 The amount of ballast water discharged into the West Basin and, thus, the potential for  
29 introduction of invasive exotic species (LAHD, 1999) from Alternative 6 operations  
30 would be greater than those described for the proposed Project due to greater ship calls.  
31 These vessels would come primarily from outside the EEZ and would be subject to  
32 regulations to minimize the introduction of non-native species in ballast water (see  
33 Section 3.3.3.8). Thus, ballast water discharges during cargo transfers in the Port would  
34 be unlikely to contain non-native species.

35 Non-native algal species can also be introduced via vessel hulls. As described for the  
36 proposed Project in **Impact BIO-4b**, the risk for introduction of these species is low.  
37 *Undaria pinnatifida*, discovered in the Los Angeles/Long Beach Harbor in 2000 (MEC  
38 and Associates, 2002), and *Sargassum filicinum* found in 2003 (MBC 2003), may be  
39 introduced and/or spread as a result of hull fouling or ballast water. Therefore, they have  
40 the potential to increase in the Harbor via vessels traveling between ports in the EEZ as  
41 described for the proposed Project. Invertebrates attached to vessel hulls could be  
42 introduced in a similar manner.

1 Terminal operations under Alternative 6 would result in a greater increase (approximately  
2 12.7 percent) in vessel traffic compared to the total number of vessels entering the  
3 Los Angeles Harbor as for the proposed Project (approximately 8 percent). Considering  
4 this and the ballast water regulations currently in effect, the potential for introduction of  
5 additional exotic species via ballast water would be low from vessels entering from or  
6 going outside the EEZ. The potential for introduction of exotic species via vessel hulls  
7 would be increased in proportion to the increase in number of vessels. However, vessel  
8 hulls are generally coated with antifouling paints and cleaned at intervals to reduce the  
9 frictional drag from growths of organisms on the hull (Global Security, 2007), which  
10 would reduce the potential for transport of exotic species. For these reasons,  
11 Alternative 6 has a low potential to increase the introduction of non-native species into  
12 the Harbor that could substantially disrupt local biological communities, but such effects  
13 could occur.

### 14 **CEQA Impact Determination**

15 Alternative 6 would increase the annual ship calls relative to the CEQA baseline.  
16 Operation of the Alternative 6 facilities has the potential to result in the introduction  
17 of non-native species into the Harbor via ballast water or vessel hulls that could  
18 substantially disrupt local biological communities. Therefore, impacts would be  
19 significant under CEQA.

#### 20 *Mitigation Measures*

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

#### 25 *Residual Impacts*

26 Residual impacts would be significant.

### 27 **NEPA Impact Determination**

28 Alternative 6 would increase the annual ship calls relative to the NEPA baseline.  
29 Operation of the Alternative 6 facilities has the potential to result in the introduction  
30 of non-native species into the Harbor via ballast water or vessel hulls that could  
31 substantially disrupt local biological communities. Therefore, impacts would be  
32 significant under NEPA.

#### 33 *Mitigation Measures*

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

#### 38 *Residual Impacts*

39 Residual impacts would be significant.

### 40 **3.3.4.3.2.7 Alternative 7 – Nonshipping Use**

41 Alternative 7 would utilize the terminal site constructed as part of Phase I for container  
42 storage and would increase the backland area to 117 acres. Because of this, the Phase I

1 construction activities are included under Alternative 7 although the in-water Phase I  
2 elements would not be used (Phase I dike, fill, and the wharf would be abandoned.

3 Alternative 7 would convert the site from shipping and containerized storage to a  
4 Regional Center developed with retail, office park, and light industrial uses on 117 acres.  
5 The existing A-frame cranes would be removed, and the bridge across the Southwest Slip  
6 and 1.3 acres of fill constructed under Phase I would be abandoned. A public dock would  
7 be constructed but would be developed only to support small watercraft. The Catalina  
8 Express Terminal would not be relocated under this alternative.

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

13 Under Alternative 7, the upland area of the site would be developed with a Regional  
14 Center composed of retail, office park, and light industrial uses on 117 acres.  
15 Construction elements under Phase I would be applied to Alternative 7. In addition, the  
16 four existing cranes would be removed, and the 1.3 acres of fill and the bridge over the  
17 Southwest Slip constructed in Phase I would be abandoned.

18 Anticipated impacts to threatened or endangered species or their habitat from in-water  
19 construction for Phase I, as applied to Alternative 7, and for the public docks are  
20 expected to be less than those of the proposed Project because the Phase I activities and  
21 the public docks (and limited pile placement to anchor the docks) would be on a smaller  
22 scale than the proposed 2,500 feet of wharf improvements under the proposed Project.  
23 Because of this, and because no critical habitat for federally listed species is present, in-  
24 water construction for Alternative 7 would be unlikely to affect threatened or endangered  
25 species or their habitat through temporary increases in noise, vibration, and turbidity or  
26 the potential for displacement of individuals from the work area.

27 No critical habitat for any federally listed species is present in the Alternative 7 area.  
28 Foraging by the California least tern, California brown pelican, or any other special-status  
29 species (Table 3.3-1) could continue during construction with no adverse effects to the  
30 species. Individuals using the West Basin could use other areas in the Harbor if they  
31 choose to avoid the immediate construction work area. No individuals would be lost, and  
32 their populations would not be adversely affected by construction activities.

33 Sound pressure waves in the water caused by in-water construction (for Phase I, as  
34 applied to Alternative 7, and for the piles required to anchor the public dock) would have  
35 less of a potential (than the proposed Project) to affect the hearing of marine mammals  
36 (sea lions) swimming in the West Basin because in-water construction for Alternative 7  
37 would not be extensive.

38 Transport of rock for the berth work for in-water construction under Phase I (as applied  
39 to Alternative 7) and to support the public docks may be required, but Alternative 7 is  
40 expected to require less rock placement than the proposed Project due to the expected  
41 smaller scale of in-water facilities. Thus, the potential for effects on marine mammals  
42 would be less than the proposed Project.

43 The USACE has made a “no effect” determination for federally listed species in the  
44 Alternative 7 area in accordance with requirements of Section 7 of the ESA.

1 There are no listed endangered, threatened, or protected species on the Project site.  
2 Because of this, neither construction of the Regional Center nor the Phase I bridge or fill  
3 abandonment would affect threatened or endangered species or their habitat.  
4 Consequently, no sensitive species or critical habitat would be affected by construction  
5 activities.

### 6 **CEQA Impact Determination**

7 Although Regional Center construction under Alternative 7 would extend beyond the  
8 CEQA baseline area, as described above, construction activities on land and in the  
9 water (Phase I as applied to Alternative 7 and in-water construction for the public  
10 docks) would result in no loss of individuals or habitat for rare, threatened,  
11 endangered, protected, or candidate species, or Species of Special Concern. Sound  
12 pressure waves from construction activities in the water would not injure marine  
13 mammals; impacts, therefore, would be less than significant under CEQA. No  
14 critical habitat for federally listed species is present, and no impacts would occur.

#### 15 *Mitigation Measures*

16 No mitigation is required.

#### 17 *Residual Impacts*

18 No residual impacts would occur.

### 19 **NEPA Impact Determination**

20 As described above, in-water construction activities (Phase I as applied to  
21 Alternative 7 and in-water construction for the public docks) would result in no loss  
22 of individuals or habitat for rare, threatened, endangered, protected, or candidate  
23 species, or Species of Special Concern, and sound pressure waves from construction  
24 activities in the water would not injure marine mammals; therefore, impacts would be  
25 less than significant under NEPA. The upland area of the Regional Center under  
26 Alternative 7 would occupy the same area as the NEPA baseline, and as such, no rare,  
27 threatened, endangered, protected, or candidate species, or Species of Special  
28 Concern or their habitat would be affected by upland construction activities, and  
29 would therefore not result in significant impacts under NEPA.

#### 30 *Mitigation Measures*

31 No mitigation would be required.

#### 32 *Residual Impacts*

33 Residual impacts would be less than significant.

### 34 **Impact BIO-2a: Construction activities would not result in a** 35 **substantial reduction or alteration of a state-, federally, or locally** 36 **designated natural habitat, special aquatic site, or plant community,** 37 **including wetlands.**

38 Construction of terminal improvements under Phase I, as applied to Alternative 7, did not  
39 affect FMP species that do not occur in the West Basin and had minimal effects on those  
40 that are rare or uncommon, such as Pacific mackerel and English sole (MEC and  
41 Associates, 2002) because few, if any, individuals frequent the disturbance area. Effects  
42 caused by dredging, dike and fill placement, pile installations, and wharf construction at

1 Berth 100 on FMP species are similar to those described for the proposed Project. The  
2 loss of water column habitat due to placement of fill (1.3 acres) in Phase I resulted in a  
3 loss of habitat and food sources for the FMP species that use the southern West Basin.  
4 The loss of habitat would not likely have a measurable effect on sustainable fisheries  
5 because it would not measurably reduce the stock of these species in the areas where they  
6 are harvested (primarily offshore in the open ocean). Loss of habitat for pelagic fish  
7 species that might use the West Basin, particularly northern anchovy, is considered a  
8 substantial effect that would be mitigated in accordance with established mitigation  
9 requirements, as described in **Impact BIO-5**.

10 Effects of in-water construction (limited pile installations to anchor the public docks) on  
11 FMP species for the public docks either along the existing Berth 100 wharf or along  
12 Berth 102 frontage would be less than those of the proposed Project. Alternative 7 may  
13 result in the loss of a small amount of water column habitat due to the possible placement  
14 of rock and fill to anchor and support the public docks, and this small amount of dike/fill  
15 would result in a loss of habitat and food sources for the FMP species that use the  
16 southern West Basin. The small loss of habitat would not likely have a measurable effect  
17 on sustainable fisheries because it would not measurably reduce the stocks of these  
18 species in the areas where they are harvested (primarily offshore in the open ocean).  
19 Although small, the loss of habitat for pelagic fish species that might use the West Basin,  
20 particularly northern anchovy, is considered a substantial effect that would be mitigated  
21 in accordance with established mitigation requirements, as described in **Impact BIO-5**.

22 Construction activities on upland areas under Phase I, as applied to Alternative 7  
23 (including the single bridge across the Southwest Slip) had no direct effects on EFH,  
24 which is located in the water. Additional construction activities on upland areas under  
25 Alternative 7 (including the abandonment of the bridge across the Southwest Slip) would  
26 have no direct effects on EFH, which is located in the water. Runoff of sediments and  
27 contaminants from such construction, however, could enter Harbor waters. As discussed  
28 in Section 3.14, implementation of sediment control measures (e.g., sediment barriers and  
29 sedimentation basins) and BMPs would minimize the impacts of such runoff.

30 No kelp or eelgrass beds are present in the Alternative 7 area, and those in other parts of  
31 the Harbor, would not be affected by construction activities for Phase I or additional in-  
32 water work for the public docks due to distance of the beds from the work area. No  
33 designated SEAs, including the least tern nesting site on Pier 400, would be affected by  
34 this alternative because no Phase I construction took place near this SEA and neither  
35 would additional construction. As described for the proposed Project, no wetlands or  
36 mudflats are present in the Alternative 7 Project area, and those in other areas of the  
37 Harbor would not be affected by construction activities in the West Basin due to distance  
38 from the Alternative 7 site (more than 3 miles).

### 39 **CEQA Impact Determination**

40 Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to  
41 Alternative 7) resulted in a permanent loss of 1.3 acres of Inner Harbor marine  
42 habitat and a reduction of EFH in the West Basin,, and the small amount of in-water  
43 rock dike, fill, and pile placement in the West Basin along Berths 100 and/or 102 (to  
44 anchor the public docks) would add slightly to the total permanent loss of a small  
45 amount of Inner Harbor marine habitat under Alternative 7. This loss of marine  
46 habitat is considered to be a significant impact under CEQA.

1 In-water construction for the public dock would cause temporary localized  
2 disturbances to, but no substantial alteration of, habitat for FMP species, which  
3 would be less than significant (less than the proposed Project). Although upland  
4 areas would be greater than those of the CEQA baseline, construction activities on  
5 the upland area, including the abandonment of the bridge over the Southwest Slip,  
6 would have no direct impacts on EFH or other natural habitats because none are  
7 present on land. Indirect impacts through runoff of sediments during storm events  
8 would be less than significant because such runoff would be controlled as described  
9 for water quality in Section 3.14 (e.g., Project-specific SWPPP with BMPs such as  
10 sediment barriers and sedimentation basins). No impacts to SEAs, kelp beds,  
11 eelgrass beds, wetlands, or mudflats would occur because none of these habitats are  
12 present at or near the Alternative 7 site.

### 13 *Mitigation Measures*

14 **MM BIO-1** would apply to this EFH impact. Mitigation for fill placed in Phase I  
15 (1.3 acres) and for the additional filling of a small amount of Inner Harbor marine  
16 habitat (for piles to anchor the public docks) would require credit from either the  
17 Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This  
18 mitigation measure would fully offset Alternative 7 impacts to EFH sustainable  
19 fisheries and loss of general marine habitat (see **Impact BIO-5**). No mitigation is  
20 required for impacts to natural habitats, special aquatic sites, or plant communities.

### 21 *Residual Impacts*

22 The mitigation credits would compensate for the loss of EFH as a result of the  
23 Alternative 7, leaving no residual impact. No residual impacts would occur for  
24 natural habitats, special aquatic sites, or plant communities.

## 25 **NEPA Impact Determination**

26 Dike, fill, and pile placement in the southern West Basin (under Phase I as applied to  
27 Alternative 7) resulted in a permanent loss of Inner Harbor marine habitat and a  
28 reduction of EFH in the West Basin and the small amount of in-water rock dike, fill,  
29 and pile placement in the West Basin along Berths 100 and/or 102 (to anchor the  
30 docks) under Alternative 7 would slightly add to the total permanent loss of a small  
31 amount of Inner Harbor marine habitat and a reduction of EFH in the West Basin  
32 under Alternative 7. This loss of marine habitat is a significant impact under NEPA.

33 Impacts would be less than significant for other in-water construction activities (e.g.,  
34 public dock construction). Runoff of sediments from the upland Regional Center site  
35 during storm events would be less than significant because such runoff would be  
36 controlled as described for water quality in Section 3.14 (e.g., Project-specific  
37 SWPPP with BMPs such as sediment barriers and sedimentation basins). No impacts  
38 to SEAs, kelp beds, eelgrass beds, wetlands, or mudflats would occur because none  
39 are present at or near the proposed Project site. Upland construction activities under  
40 Alternative 7 would occur on the same site as the NEPA baseline (117 acres), and  
41 construction BMPs would minimize impacts; consequently, upland area construction  
42 would not result in significant impacts under NEPA.

### 43 *Mitigation Measures*

44 **MM BIO-1** would apply to this EFH impact. Mitigation for fill placed in Phase I  
45 (1.3 acres) and for the additional fill of a small amount of Inner Harbor marine

1 habitat (for piles to anchor the public docks) would require credit from either the  
2 Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. This  
3 mitigation measure would fully offset Alternative 7 impacts to EFH sustainable  
4 fisheries and loss of general marine habitat (see **Impact BIO-5**). No mitigation is  
5 required for impacts to natural habitats, special aquatic sites, or plant communities.

#### 6 *Residual Impacts*

7 The mitigation credits would compensate for the loss of EFH as a result of the  
8 Alternative 7, leaving no residual impact.

### 9 **Impact BIO-3a: Construction activities would not interfere with** 10 **wildlife movement/migration corridors.**

11 In-water and backlands construction under Phase I would be applied to Alternative 7.  
12 There are no wildlife movement or migration corridors on the Project site. Phase I  
13 construction, construction of the Regional Center, the bridge and fill abandonment, and  
14 in-water construction to support the public docks would not affect wildlife movement or  
15 migration corridors.

#### 16 **CEQA Impact Determination**

17 Although construction would extend beyond the CEQA baseline, no wildlife  
18 movement or migration corridors would be affected by Alternative 7, and no impacts  
19 would occur under CEQA.

#### 20 *Mitigation Measures*

21 No mitigation is required.

#### 22 *Residual Impacts*

23 No residual impacts would occur.

#### 24 **NEPA Impact Determination**

25 In-water and backland construction under Phase I (including the Phase I bridge over  
26 the Southwest Slip) would be applied to this alternative. Although Alternative 7  
27 would include some additional in-water construction (piles to anchor the public docks)  
28 that is not included in the NEPA baseline, in-water construction and upland  
29 construction activities on the site would not affect any wildlife movement or  
30 migration corridors as described above; therefore, no impacts would occur under  
31 NEPA.

#### 32 *Mitigation Measures*

33 No mitigation is required.

#### 34 *Residual Impacts*

35 No residual impacts would occur.

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

3                   **In-Water Construction**

4                   In-water and backlands construction under Phase I would be applied to Alternative 7.  
5                   Dredging, dike and fill placement, and pile installation that occurred for Berth 100  
6                   construction under Phase I, as applied to Alternative 7, disturbed and removed  
7                   approximately 1.3 acres of soft-bottom habitat in a linear strip near Berth 100 in Phase I  
8                   (Table 3.3-3). In-water construction to support the public docks at Berth 100 and/or  
9                   Berth 102 would require the placement of small amounts of rock dike, fill, and piles  
10                  adjacent to the berths, and would slightly add to the 1.3 acres. These activities would  
11                  result in the disturbance or a small amount of soft-bottom habitat and associated benthic  
12                  invertebrates living in and on the soft bottom. Although only a small proportion of the  
13                  soft bottom in the West Basin would be affected by the in-water construction, the loss of  
14                  benthic communities in the West Basin or the Harbor would be considered a significant  
15                  impact under Alternative 7.

16                 Effects of turbidity and resuspension of sediments containing contaminants on planktonic  
17                 organisms would be limited to the immediate vicinity of the in-water construction and  
18                 would be less than the effects of the proposed Project due to a lower amount of  
19                 anticipated in-water construction.

20                 Removal of sediments containing accumulated contaminants through dredging for the  
21                 wharf work at Berth 100 has provided benefits to the benthic community in the West  
22                 Basin and the Harbor. Temporary disturbances to fish and marine mammals were caused  
23                 by dredging and wharf construction activities during Phase I (as applied to Alternative 7)  
24                 but were not significant.

25                 Fish in the water column and on or near the bottom would be temporarily disturbed by  
26                 the in-water construction activities (from Phase I construction and from in-water work  
27                 related to the public docks) as a result of turbidity, noise, displacement, and vibration.  
28                 Effects on fish populations in the Inner Harbor would be short term and localized, with  
29                 no substantial disruption of local fish communities. Marine mammals, such as sea lions,  
30                 in the West Basin at the time of construction could be temporarily disturbed by the in-  
31                 water construction activities, but any individuals present would likely avoid the work  
32                 area. Few, if any, would be present, based on survey data from 2000 (MEC and  
33                 Associates, 2002). Construction activities would not interfere with marine mammal  
34                 foraging because the disturbances would be in localized areas and large foraging areas  
35                 would remain available to them elsewhere in the West Basin and throughout the Harbor.

36                 Construction of the 1,200-foot wharf at Berth 100 under Phase I, as applied to  
37                 Alternative 7, added new rock dike hard-substrate habitat. Marginal aquatic habitat  
38                 benefit accrued from the small amount of new hard substrate created under Alternative 7  
39                 due to shading.

40                 **Upland Development and Construction**

41                 Under Alternative 7, the construction of the Regional Center development on the upland  
42                 areas of the Project site would have minimal effect on terrestrial biota because the species  
43                 present are non-native and/or adapted to use of developed sites. Disturbances to marine  
44                 species, if any, would be temporary, and the individuals could move to other nearby areas  
45                 for the duration of the disturbance. Consequently, biological communities in this  
46                 industrial area would not be substantially disrupted.

1 Runoff of pollutants from Alternative 7 upland construction activities would be  
2 minimized through use of BMPs (see Section 3.14), and the low concentrations that could  
3 enter Harbor waters would not adversely affect marine organisms.

#### 4 **Accidents**

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

9 Accidental spills of fuel, lubricants, or hydraulic fluid from the equipment used during  
10 Phase I construction were minimal, and for additional in-water activities (related to the  
11 public docks) are unlikely to occur during Alternative 7 construction (see Section 3.14  
12 **Impact WQ-1d**) and would not adversely affect aquatic biota to the degree that West  
13 Basin biological communities are substantially disrupted. Any such spills would be small  
14 and cleaned up immediately, resulting in loss of few marine organisms and causing no  
15 adverse community effects. A larger spill that could have locally substantial effects on  
16 biological resources is not expected to occur, even under reasonable worst-case  
17 conditions (see Section 3.8, Hazards). Accidental spills of pollutants during construction  
18 on land would be small because large quantities of such substances would not be used  
19 during construction. These spills would be contained and cleaned up with no runoff to  
20 Harbor waters (see Section 3.14).

#### 21 **CEQA Impact Determination**

22 Construction activities on upland areas (including Phase I) would extend beyond the  
23 CEQA baseline area but would not result in a substantial disruption of local  
24 biological communities for the reasons described above, and impacts, therefore,  
25 would be less than significant. However, The loss of approximately 1.3 acres of soft-  
26 bottom habitat in the West Basin under Phase I (as applied to Alternative 7) and the  
27 loss of a small amount of soft-bottom habitat in the West Basin related to the public  
28 docks would represent a significant impact to the benthic community. Runoff of  
29 pollutants from backland construction activities would not substantially disrupt  
30 biological communities in the West Basin and would have only localized, short-term,  
31 less than significant impacts on marine organisms in the immediate vicinity of drain  
32 outlets due to implementation of runoff control measures that are part of  
33 Alternative 7 (e.g., Project-specific SWPPP and BMPs such as sediment barriers and  
34 sedimentation basins; see Section 3.14.4.3 for a list of measures). Accidental spills  
35 from equipment during dredging would not substantially disrupt local biological  
36 communities because they would be small, contained, cleaned up immediately, and  
37 affect only a few common marine organisms, and thus would have localized, less  
38 than significant impacts. Accidental spills during construction on land would not  
39 affect Harbor waters due to the implementation of BMPs and thus would have no  
40 impacts on marine communities. No notice to proceed will be issued without  
41 approval of the specific SWPPP and BMPs.

#### 42 *Mitigation Measures*

43 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
44 detailed description of this measure).

1 *Residual Impacts*

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

4 **NEPA Impact Determination**

5 In-water construction under Alternative 7 in the West Basin (including Phase I, as  
6 applied to Alternative 7) would result in the loss of approximately 1.3 acres of soft-  
7 bottom habitat and associated benthic communities, as described above, and impacts,  
8 therefore, would be significant. Upland development at the site would occur on the  
9 same area as the NEPA baseline (117 acres), and there are no local biological  
10 communities on the Project site that could be adversely affected; consequently,  
11 backland construction would not result in significant biological resource impacts  
12 under NEPA.

13 *Mitigation Measures*

14 **MM BIO-1** would apply for benthic community impacts (see Impact Bio-5 for  
15 detailed description of this measure).

16 *Residual Impacts*

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

19 **Impact BIO-5: A permanent loss of marine habitat would occur.**

20 Dike placement and fill in the West Basin occurred in Phase I (as applied to  
21 Alternative 7). Placement of a small amount of dike, fill, and piles in the West Basin to  
22 support the public dock would cause an additional small loss of aquatic habitat, including  
23 water column and soft bottom. The beneficial uses associated with that habitat would  
24 also be lost.

25 **CEQA Impact Determination**

26 Project construction would occur beyond the CEQA baseline area into the West  
27 Basin, and the placement of fill in Phase I and placement of an additional small  
28 amount of dike, fill, and piles in the vicinity of Berth 100 and/or Berth 102 for the  
29 public docks under Alternative 7 would cause a permanent loss of approximately  
30 1.3 acres of aquatic habitat in the Los Angeles Inner Harbor (southern West Basin),  
31 as described above. This impact is considered significant under CEQA.

32 *Mitigation Measures*

33 **MM BIO-1** applies to this impact to marine habitat. However, because this  
34 alternative would result in less Inner Harbor fill than the proposed Project, fewer  
35 mitigation credits apply. Mitigation for the filling of Inner Harbor marine habitat  
36 requires Outer Harbor credit offsets from either the Bolsa Chica Mitigation  
37 Agreement or the Outer Harbor Mitigation Bank (Outer Harbor credits will be  
38 applied at one-half the acreage of Inner Harbor habitat losses). This mitigation  
39 measure fully offsets Alternative 7 impacts of the loss of general marine habitat (see  
40 **Impact BIO-5**). No mitigation is required for impacts to natural habitats, special  
41 aquatic sites, or plant communities.

1 *Residual Impacts*

2 **MM BIO-1**, as described under the proposed Project, would be implemented, which  
3 would fully mitigate the impact.

4 **NEPA Impact Determination**

5 Alternative 7 development would include placement of fill in Phase I and some in-  
6 water construction for the public docks that is not included in the NEPA baseline.  
7 Under Alternative 7, the placement of fill in Phase I and placement of a small amount  
8 of dike, fill, and piles at Berths 100-102 to support the public docks would cause a  
9 permanent loss of approximately 1.3 acres of aquatic habitat in the Los Angeles Inner  
10 Harbor, as described above, and this impact is considered significant under NEPA.

11 *Mitigation Measures*

12 **MM BIO-1**, as described under the above in the CEQA Impact Determination,  
13 would be implemented, which would fully mitigate the impact.

14 *Residual Impacts*

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

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

22 Operation of the Regional Center under Alternative 7 would not adversely affect any of  
23 the state- or federally listed, or special concern bird species listed in Table 3.3-1. Those  
24 species that currently use the West Basin area for foraging or resting could continue to do  
25 so because Alternative 7 would not cause a loss of habitat for those species. Operation of  
26 the upland development (e.g., retail, office, and industrial uses) would not measurably  
27 change the numbers or species of common birds in that area and, thus, would not affect  
28 peregrine falcon foraging. Perching locations for birds such as the California brown  
29 pelican would still be available. The increase in recreational vessel traffic in the West  
30 Basin would result in minimal disturbances and would not result in a loss of habitat or  
31 individuals for sensitive birds that use the water surface for resting or foraging.

32 Alternative 7 would result in increased recreational vessels within the West Basin, which  
33 represents an increase in marine use above the CEQA and NEPA baseline. Underwater  
34 sound from these recreational vessels would add to the existing vessel traffic noise in the  
35 Harbor. Because the increased recreational vessels use under Alternative 7 would be  
36 from small craft travel that have considerably lower power levels and size (compared to  
37 shipping vessels), Alternative 7 operations would not affect existing noise levels or vessel  
38 strike potentials.

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

## CEQA Impact Determination

Regional Center activity under Alternative 7 would be greater than the CEQA baseline; however, operational activities from Alternative 7 would not result in the loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern. No impact to critical habitat would occur because no critical habitat is present. Underwater sound from Alternative 7 Project-related small craft travel would affect few, if any, marine mammals. Impacts, therefore, would be less than significant under CEQA

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

Residual impacts would be less than significant.

## NEPA Impact Determination

Alternative 7 development would include some in-water construction that is not included in the NEPA baseline. In-water operational activities under Alternative 7 would not result in the loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern. In addition, underwater sound from Alternative 7 small craft vessels would affect few, if any, marine mammals for the reasons described above; therefore, impacts would be less than significant under NEPA. Because no biological resources or critical habitat exist on the Alternative 7 site that could be adversely affected, Alternative 7 operations would not result in significant impacts under NEPA.

### *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 upland 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 the Regional Center under Alternative 7 would have minimal effects on EFH. The increase in recreational small craft traffic in the West Basin under Alternative 7 would represent an increase in vessel traffic over the CEQA and NEPA baseline of zero annual ship calls; however, in-water noise effects would not be substantial, as described in **Impact BIO-1b**. The added noise would be minor because the small craft would have considerably less power and size than shipping vessels. Although Alternative 7 small craft trips would add to the number of noise events, they would not add substantially to the overall underwater noise levels. Operation of Alternative 7 facilities on land would not affect EFH because none is present on land.

1 Runoff from the upland portions of the Regional Center would not substantially reduce or  
2 alter EFH in Harbor waters because water quality standards for protection of marine life  
3 would not be exceeded (see Section 3.14).

#### 4 **Natural Habitat or Plant Community**

5 As described in **Impact BIO-2a**, no SEAs or natural plant communities are present that  
6 could be affected by operation of the Regional Center under Alternative 7. No wetlands,  
7 eelgrass, or mudflats are present in the Project area, and those in other areas of the Harbor  
8 are not located in or near (over 1 mile away) the channels used for vessel movement in  
9 the Harbor. Thus, these habitats would not be affected by operational activities in the  
10 West Basin or vessel transit through the Harbor to the West Basin.

#### 11 **CEQA Impact Determination**

12 Regional Center activity under Alternative 7 would be greater than the CEQA  
13 baseline; however, operational activities on land and in the water under Alternative 7  
14 would not substantially reduce or alter EFH for the reasons described above, resulting  
15 in less than significant impacts to EFH under CEQA. No SEAs, natural plant  
16 communities, wetlands, or eelgrass are present, and the mudflats along the Main  
17 Channel would not be affected by project-related vessel traffic. As a consequence,  
18 significant impacts would not occur under CEQA.

#### 19 *Mitigation Measures*

20 No mitigation is required.

#### 21 *Residual Impacts*

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

#### 24 **NEPA Impact Determination**

25 Operational activities under Alternative 7 in the water would not substantially reduce  
26 or alter EFH for the reasons described above, resulting in less than significant  
27 impacts to EFH under NEPA. Operational activities in the water would not affect  
28 SEAs, natural plant communities, wetlands, eelgrass, and mudflats because none are  
29 present where in-water activities would occur. There are no EFH or natural habitats  
30 on the upland area of the site, and as such, Regional Center operations would not  
31 result in significant impacts under NEPA.

#### 32 *Mitigation Measures*

33 No mitigation is required.

#### 34 *Residual Impacts*

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

#### 37 **Impact BIO-3b: Operation of Alternative 7 facilities would not** 38 **interfere with wildlife movement/migration corridors.**

39 As described in **Impact BIO-3a**, no known terrestrial wildlife or aquatic species  
40 migration corridors are present in the Project area, either on land or in the water.

1 Migration by bird species that visit or pass through the terminal would not be affected by  
2 the Regional Center development or operations because the new structures would not  
3 impede their movement. Operation of the Regional Center would not interfere with any  
4 terrestrial migration corridors because none are present in those areas. Related small  
5 craft vessel traffic to and from the Harbor under Alternative 7 would not interfere with  
6 marine mammal migrations along the coast because: these vessels would be visiting the  
7 Regional Center from the Inner Harbor; visitors who travel by watercraft are likely to  
8 reside at nearby marinas, and the small craft they use would have low probabilities of  
9 encountering migrating marine mammals during transit through coastal waters; and these  
10 animals generally are distributed sparsely.

### 11 **CEQA Impact Determination**

12 Although terminal operations would extend over a larger area and be more intensive  
13 than the CEQA baseline, no wildlife movement or migration corridors would be  
14 affected by Alternative 7 during operations activities on land and in the water,  
15 resulting in no impacts under CEQA.

#### 16 *Mitigation Measures*

17 No mitigation is required.

#### 18 *Residual Impacts*

19 No residual impacts would occur.

### 20 **NEPA Impact Determination**

21 Alternative 7 would operate on the same site as the NEPA baseline. Operation of  
22 terminal facilities under Alternative 7 would not affect any wildlife movement or  
23 migration corridors in the water for the reasons described above; therefore, no  
24 impacts would occur under NEPA. There are no migration corridors on the Project  
25 site; consequently, operational activities on upland areas of the Regional Center  
26 under Alternative 7 would not result in significant impacts under NEPA.

#### 27 *Mitigation Measures*

28 No mitigation is required.

#### 29 *Residual Impacts*

30 No residual impacts would occur under NEPA.

### 31 **Impact BIO-4b: Operation of the existing facilities would not** 32 **substantially disrupt local biological communities.**

33 Operational or permanent effects associated with Alternative 7 would be less intensive  
34 than those described for the proposed Project in **Impact BIO-4b** because the amount of  
35 in-water infrastructure under this alternative, the site acreage, and characteristics of  
36 vessel traffic would be less intensive than the proposed Project. Recreational small craft  
37 traffic to and from the public docks would have minimal direct effects on benthic  
38 communities in the West Basin from propeller wash due to the minimal draft of small  
39 craft. Accidental spills of fuel or other fluids from watercraft that visit the Regional  
40 Center could occur as a result of a vessel collision, although the likelihood is considered  
41 remote due to the slow speeds required in the vicinity of docks. In addition, recreational  
42 watercraft do not contain large amounts of fuel, and if an accident occurred and fuels

1 entered Harbor waters, minimal permanent harm to biological resources would not be  
2 expected because an accidental spill would likely be too small and localized to  
3 substantially affect marine biological resources. Therefore, marine vessel traffic effects  
4 on water column species would be minimal compared to those of the proposed Project  
5 (see **Impact BIO-4b**).

6 Runoff of pollutants to the Harbor from the new Regional Center would be slightly less  
7 than those described for the proposed Project in **Impact BIO-4b** because the Regional  
8 Center site would be smaller (by 25 acres). Runoff of pollutants would have no adverse  
9 effects on water quality (Section 3.14) and, thus, would not adversely affect West Basin  
10 biological communities (fish, benthos, plankton). Such runoff could occur during dry  
11 weather and from storm events. The latter is periodic, primarily during the winter rainy  
12 season, and generally of short duration.

13 Terminal lighting under Alternative 7 is not anticipated to substantially increase lighting.  
14 Because the site is located in a largely industrial area, the light would not substantially  
15 affect terrestrial wildlife habitat or the species present. Most of the new lights would be  
16 located away from the edge of the water (throughout the Regional Center site), and this  
17 would minimize effects on marine organisms so that biological communities would not  
18 be substantially disrupted.

### 19 **CEQA Impact Determination**

20 Although terminal operations would extend over a larger area and be more intensive  
21 than the CEQA baseline, terminal operations under Alternative 7 would not  
22 substantially disrupt West Basin and Harbor biological communities through runoff  
23 of contaminants. Existing runoff and storm drain discharge controls as well as  
24 conditions of all terminal-specific permits would be implemented (see Section 3.14).  
25 The presence of new public docks, increased small craft traffic, or new lighting  
26 would not substantially disrupt West Basin and Harbor biological communities, for  
27 the reasons described above. Impacts, therefore, would be less than significant under  
28 CEQA.

#### 29 *Mitigation Measures*

30 No mitigation is required.

#### 31 *Residual Impacts*

32 Residual impacts would be less than significant.

### 33 **NEPA Impact Determination**

34 Alternative 7 would include some in-water operational activity that is not included in  
35 the NEPA baseline. Under Alternative 7, the new public docks in the water column  
36 and increased vessel traffic would not substantially disrupt West Basin and Harbor  
37 biological communities for the reasons described above. Consequently, impacts to  
38 biological communities would be less than significant under NEPA. There are no  
39 biological communities on the Project site that could be adversely affected by upland  
40 operations, and therefore, Alternative 7 would not result in significant operational  
41 impacts under NEPA.

#### 42 *Mitigation Measures*

43 No mitigation is required.

### *Residual Impacts*

No residual impacts would occur 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 contaminated ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (LAHD, 1999) from Alternative 7 operations would be less than those described for the proposed Project because the small craft that are expected to frequent the Regional Center are not expected to use ballast water from non-U.S. locations. Rather, most trips are expected to be local or regional recreational vessels that already exist in the harbor or nearby marinas.

Non-native algal species can also be introduced via vessel hulls if those vessels have traveled to destinations with non-native algal populations. However, small craft that would frequent the Regional Center are not anticipated to be sources of non-native algal species due to the local and regional nature of most small craft travel.

Terminal operations under Alternative 7 would result in an increase in recreational small craft vessel traffic compared to existing conditions. The potential for introduction of exotic species via small craft hulls under Alternative 7 would be considered minimal due to the local and regional nature of small craft in the Harbor and because vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growth of organisms on the hull (Global Security, 2007), which would reduce the potential for transport of exotic species. For these reasons, Alternative 7 has a low potential to increase the introduction of non-native species into the Harbor that could substantially disrupt local biological communities. Potential impacts resulting from Alternative 7 operations are considered less than significant.

### **CEQA Impact Determination**

Alternative 7 would increase the recreational water craft use of the West Basin relative to the CEQA baseline; however, with only recreational small craft vessels visiting the Regional Center, Alternative 7 operations are not expected to result in the introduction of non-native species into the Harbor that could disrupt local biological communities. Consequently, no significant impacts would occur under CEQA.

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

No residual impacts would occur under CEQA.

### **NEPA Impact Determination**

Alternative 7 would increase the recreational water craft use of the West Basin relative to the NEPA baseline; however, with only recreational small craft vessels visiting the Regional Center, Alternative 7 operations are not expected to result in the introduction of non-native species into the Harbor that could disrupt local biological communities. Consequently, no significant impacts would occur under NEPA.

1                    *Mitigation Measures*

2                    No mitigation is required.

3                    *Residual Impacts*

4                    No residual impacts would occur under CEQA.

5    **3.3.4.3.3    Summary of Impact Determinations**

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

13                    For each type of potential impact, the table describes the impact, notes the CEQA and  
14                    NEPA impact determinations, describes any applicable mitigation measures, and notes  
15                    the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether  
16                    significant or not, are included in this table. Note that impact descriptions for each of the  
17                    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
<b>3.3 Biological Resources</b>				
Proposed Project	<b>BIO-1a:</b> 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 construction, and no impact for backland construction	Mitigation not required  Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for in-water construction, and no impact for backland construction
	<b>BIO-2a:</b> 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 fill in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities  NEPA: Significant impact to EFH from fill in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1:</b> The LAHD shall apply 1.27 credits (equal to 2.54 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 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.  <b>MM BIO-1</b>	NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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

**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
<b>3.3 Biological Resources (continued)</b>				
Proposed Project (continued)	<b>BIO-4a:</b> Dredge and fill in the West Basin would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill in the West Basin would result in a permanent loss of marine habitat.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact after mitigation NEPA: No impact after mitigation
	<b>BIO-1b:</b> 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 West Basin fill and in-water facilities; no impact for backlands	Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact. <b>MM BIO-2:</b> All ships calling at Berths 97-109 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area, starting 2009.  Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	CEQA: Less than significant impact  NEPA: Less than significant impact for West Basin fill; no impact for backlands
	<b>BIO-2b:</b> 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

**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
<b>3.3 Biological Resources (continued)</b>				
Proposed Project (continued)	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> There is a remote possibility for vessel spills (from operations) to harm biological communities in the Harbor.	CEQA: Significant impact NEPA: Significant impact	Mitigation beyond regulatory compliance is not available Mitigation beyond regulatory compliance is not available	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
	<b>BIO-4c:</b> 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	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
Alternative 1	<b>BIO-1a:</b> 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
	<b>BIO-2a:</b> Phase I dike and fill placement resulted in a loss of aquatic habitat. Construction activities would otherwise 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: Significant impact (from Phase I) NEPA: Not applicable	<b>MM BIO-1</b> Mitigation not required	CEQA: No impact NEPA: Not applicable
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Phase I construction resulted in significant impacts to benthic communities	CEQA: Significant impact (from Phase I) NEPA: Not applicable	<b>MM BIO-1</b> 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 1 (continued)	<b>BIO-5:</b> Phase I construction caused a loss of soft-bottom habitat.	CEQA: Significant impact (from Phase I) NEPA: Not applicable	<b>MM BIO-1</b> Mitigation not required	CEQA: No impact NEPA: Not applicable
	<b>BIO-1b:</b> 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
	<b>BIO-2b:</b> 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
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> 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: Less than significant NEPA: Not applicable
	<b>BIO-4c:</b> Operation of the new facilities would not have 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

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 2	<b>BIO-1a:</b> 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
	<b>BIO-2a:</b> Phase I dike and fill placement resulted in a loss of aquatic habitat. Construction activities would not otherwise 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 NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-3a:</b> Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-4a:</b> Phase I construction resulted in an impact to benthic communities	CEQA: Significant impact (from Phase I) NEPA: Significant impact (from Phase I)	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact.
	<b>BIO-5:</b> Phase I resulted in the loss of 1.3 acres of soft bottom marine habitat	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact.
	<b>BIO-1b:</b> 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: No impact.	Mitigation not required Mitigation not required	CEQA: Less than significant 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 2 (continued)	<b>BIO-2b:</b> 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: No impact.	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: No impact.
	<b>BIO-3b:</b> 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.
	<b>BIO-4b:</b> Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact  NEPA: No impact.	Mitigation not required  Mitigation not required	CEQA: Less than significant impact  NEPA: No impact.
	<b>BIO-4c:</b> Operation of the new facilities would not have a potential to introduce non-native species into the Harbor that could disrupt local biological communities.	CEQA: No impact NEPA: No impact.	Mitigation not required Mitigation not required	CEQA: No impact NEPA: No impact.
Alternative 3	<b>BIO-1a:</b> 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

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 3 (continued)	<b>BIO-2a:</b> Dredge and fill 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; no impacts to other natural habitats, special aquatic sites, or plant communities  NEPA: Significant impact to EFH; no impacts to other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation  NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Dredge and fill would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill placement would result in a permanent loss of marine habitat	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact after mitigation NEPA: No impact after mitigation
	<b>BIO-1b:</b> 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	Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.  Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	CEQA: Less than significant impact  NEPA: Less than 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 3 (continued)	<b>BIO-2b:</b> 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
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> There is a remote possibility for vessel spills (from operations) to harm biological communities in the Harbor.	CEQA: Significant impact NEPA: Significant impact	Mitigation beyond regulatory compliance is not available Mitigation beyond regulatory compliance is not available	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
	<b>BIO-4c:</b> 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	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
Alternative 4	<b>BIO-1a:</b> 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

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 4 (continued)	<b>BIO-2a:</b> 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: Significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities NEPA: Significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation  NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Dredge and fill would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill placement would result in a permanent loss of marine habitat	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-1b:</b> 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	Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	CEQA: Less than significant impact
NEPA: Less than significant impact		Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	NEPA: Less than 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 4 (continued)	<b>BIO-2b:</b> 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: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities	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: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> There is a remote possibility for vessel spills (from operations) to harm biological communities in the Harbor.	CEQA: Significant impact NEPA: Significant impact	Mitigation beyond regulatory compliance is not available Mitigation beyond regulatory compliance is not available	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
	<b>BIO-4c:</b> 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	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
Alternative 5	<b>BIO-1a:</b> 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

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 5 (continued)	<b>BIO-2a:</b> 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: Significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities  NEPA: Significant for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation  NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Dredge and fill would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill placement would result in a permanent loss of marine habitat.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact after mitigation NEPA: Not impact after mitigation
	<b>BIO-1b:</b> 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	Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.  Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	CEQA: Less than significant impact  NEPA: Less than 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 5 (continued)	<b>BIO-2b:</b> 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: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities	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: Less than significant impact for EFH; no impacts for other natural habitats, special aquatic sites, or plant communities
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> There is a remote possibility for vessel spills (from operations) to harm biological communities in the Harbor.	CEQA: Significant impact NEPA: Significant impact	Mitigation beyond regulatory compliance is not available Mitigation beyond regulatory compliance is not available	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
	<b>BIO-4c:</b> 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	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
Alternative 6	<b>BIO-1a:</b> Construction activities would not result in a 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.	CEQA: Less than significant impact  NEPA: Less than significant impact for in-water construction activities; no impact for backland construction.	Mitigation not required  Mitigation not required	CEQA: Less than significant impact  NEPA: Less than significant impact for in-water work; no impact for backland construction

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 6 (continued)	<b>BIO-2a:</b> 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 fill placement in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities  NEPA: Significant impact to EFH from fill placement in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation.  NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Dredge and fill would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill in the West would result in a permanent loss of marine habitat.	CEQA: Significant impact  NEPA: Significant impact	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation NEPA: No impact after mitigation
	<b>BIO-1b:</b> 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	Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.  Mitigation not required; however, <b>MM BIO-2</b> would further reduce any potential for impact.	CEQA: Less than significant impact  NEPA: Less than 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
<b>3.3 Biological Resources (continued)</b>				
Alternative 6 (continued)	<b>BIO-2b:</b> 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
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> There is a remote possibility for vessel spills (from operations) to harm biological communities in the Harbor.	CEQA: Significant impact NEPA: Significant impact	Mitigation beyond regulatory compliance is not available Mitigation beyond regulatory compliance is not available	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
	<b>BIO-4c:</b> 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	<b>CEQA: Significant impact</b> <b>NEPA: Significant impact</b>
Alternative 7	<b>BIO-1a:</b> 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 construction, and no impact for backland construction	Mitigation not required  Mitigation not required	CEQA: Less than significant impact  NEPA: Less than significant impact for in-water construction, and no impact for backland construction

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 7 (continued)	<b>BIO-2a:</b> 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 fill in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities  NEPA: Significant impact to EFH from fill in the West Basin; no impacts to other natural habitats, special aquatic sites, or plant communities	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation  NEPA: No impact after mitigation
	<b>BIO-3a:</b> 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
	<b>BIO-4a:</b> Dredge and fill in the West Basin would cause a loss of benthic communities.	CEQA: Significant impact NEPA: Significant impact	<b>MM BIO-1</b> <b>MM BIO-1</b>	CEQA: No impact NEPA: No impact
	<b>BIO-5:</b> Fill in the West would result in a permanent loss of marine habitat.	CEQA: Significant impact  NEPA: Significant impact	<b>MM BIO-1</b>  <b>MM BIO-1</b>	CEQA: No impact after mitigation NEPA: No impact after mitigation
	<b>BIO-1b:</b> 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 West Basin fill and in-water facilities; no impact for backlands	Mitigation not required  Mitigation not required	CEQA: Less than significant impact NEPA: Less than significant impact for West Basin fill; no impact for backlands

**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
<b>3.3 Biological Resources (continued)</b>				
Alternative 7 (continued)	<b>BIO-2b:</b> 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
	<b>BIO-3b:</b> 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
	<b>BIO-4b:</b> Operation of the new facilities would not substantially disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact	Mitigation not required Mitigation not required	CEQA: Less than significant NEPA: Less than significant
	<b>BIO-4c:</b> Operations are not expected to result in the introduction of non-native species into the Harbor that could disrupt local biological communities.	CEQA: Less than significant impact NEPA: Less than significant impact.	Mitigation not required Mitigation not required	CEQA: Less than significant. NEPA: Less than significant.
Note: *Unless otherwise noted, all impact descriptions for the alternatives are the same as those described for the proposed Project				

### 3.3.4.4 Mitigation Monitoring

The below mitigation monitoring program is applicable to the proposed Project, Alternatives 3, 4, 5, 6, and 7 (mitigation measure MM BIO-2 does not apply to Alternative 7).

<b>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.</b>	
Mitigation Measure	<b>BIO-1:</b> Compensate for loss of marine habitat (EFH) and loss of benthic communities 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.
<b>BIO-4a: Dredge and fill would cause a loss of benthic communities.</b>	
Mitigation Measure	<b>BIO-1:</b> Compensate for loss of marine habitat (EFH) and loss of benthic communities 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.
<b>BIO-5: Filling in the Northwest Slip would result in a permanent loss of marine habitat.</b>	
Mitigation Measure	<b>BIO-1:</b> 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.
<b>BIO-1b: Although the likelihood of a collision between a vessel and marine mammals is considered less than significant, the following measure would further reduce potential impacts:</b>	
Mitigation Measure	<b>MM BIO-2: Vessel Speed Reduction Program.</b> All ships calling at Berths 97-109 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 100 percent starting in 2009
Timing	During Operation (Phases II and III)
Methodology	LAHD shall require VSRP as a requirement of the lease to China Shipping.
Responsible Parties	LAHD/China Shipping
Residual Impacts	Less than Significant

### 1   **3.3.5    Significant Unavoidable Impacts**

2           For the proposed Project, Alternatives 3, 4, 5, and 6, **Impact BIO-4b**, potential vessel  
3           spill impacts on biological communities, and **Impact BIO-4c**, introduction of non-native  
4           species that substantially disrupt local biological communities, would remain a  
5           significant and unavoidable impact because no feasible mitigation is currently available.